MAM GRAMMAR IN OUTLINE

By

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To
Frederica de Laguna
for introducing me to anthropology

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CONVENTIONS AND ABBREVIATIONS

[ ]	phonetic representation
/ /	phonemic representation (practical orthography)
{ }	morpheme
.	divides morphemes in examples and texts
T	transitive root
I	intransitive root
N	noun root
A	adjective root
AF	affect root
P	positional root
t	transitive stem
i	intransitive stem
n	noun stem
a	adjective stem
af	affect stem
$\underline{\quad\quad}^{1}$	underlining with numbers refers to phrases
$\overbrace{\quad\quad}$	braces under words indicate clauses
(Sp)	Spanish loan

Dashes before or after a morpheme indicate that it is bound.

Words or morphemes underlined in discursive passages are always in the phonemic orthography.

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MAM GRAMMAR IN OUTLINE

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Mam is a Mayan language spoken by several hundred thousand indigenous people in highland Guatemala and Chiapas. It has the third largest number of speakers in the Mayan family, but has been relatively little described, even compared to other Mayan languages. This grammar is a description of the phonology, grammatical processes, verb semantics, and grammatical categories in Mam. It is based on data collected during more than two years of fieldwork in Guatemala.

The phonology chapter contains a phonemic analysis of the language and a description of the major morphophonemic processes. The grammatical processes chapter describes morpheme, work, and root classes; and stem, phrase, and sentence formation.

Root classes are verbs, positionals, nouns, adjectives, affect words, and particles. Of these all but positionals are matched by stem and word classes. Word classes are verbs, nouns, adjectives, affect words, derived adverbials, and particles. Phrases types are noun, verb and adverb. Simple sentences are linking, intransitive, or transitive; in addition there are compound and complex sentences. Inflection of nouns and verbs is described under word classes, while derivational affixes are described under stem formation. In addition there are a number of clitics, which are described under word classes, phrase formation, and sentence formation.

After the description of the grammatical processes, a chapter is devoted to verbal semantic categories as revealed through the use and distribution of directionals in the verb phrase. A final chapter is devoted to a discussion of the grammatical categories which are defined by the organizational principles of the language. This includes discussion of verbal categories, person relationships, description, and emphasis.

An appendix gives a text in Mam, broken down into morpheme segments and with both a literal interlinear and a free translation.

0. INTRODUCTION

0.1 THE LANGUAGE AND THE PEOPLE

Mam is a Mayan language spoken in highland Guatemala in the departments of Huehuetenango, San Marcos, and Quezaltenango and also in Chiapas, Mexico. It is one of the twenty-four to thirty extant Mayan languages (Kaufman, 1974a:34), and belongs to the Greater Mamean branch of the Eastern Mayan languages. Greater Mamean, which includes Teco, Ixil, Aguacatec, and Mam, split off from the Greater Quichean branch in approximately 1400 B.C., and Mam proper has been a distinct language since about 500 A.D. (Kaufman, 1974b).

There are approximately 350,000 speakers of Mam today (Kaufman, 1974a:85), which makes it the third largest Mayan language after Quiché and Cakchiquel. There is considerable dialect variation within the language; almost every town where Mam is spoken has a different dialect (there is even some variation within towns, primarily on a geographical basis), and the differences between major dialect areas are such that intelligibility is greatly reduced. The data on which this grammar is based are from the town of San Ildefonso Ixtahuacán,

Huehuetenango, Guatemala, where a dialect of Northern Mam is spoken. These data are representative of general processes which can be found in other dialects of Northern Mam. Specific details will differ on all levels of the grammar, however.

The Mam people live in a part of the Guatemalan highlands which they have occupied continuously since long before the Spanish Conquest, perhaps from as early as 500 A.D. (Kaufman, 1973). Huehuetenango, partially occupied by Mam people today, may in fact have been the center of early Mayan dispersal, about 2600 B.C. (Vogt, 1969b). The area, in short, has a very long history of occupation by the Mam people and their forebears, both before and after the Spanish Conquest. Many of the present day towns (municipios) originated before the Conquest (Valladares, 1957:28) and each has a separate and distinct identity whereby people from one town regard people from other towns as strangers, even if they speak the same language (Wagley, 1969:55). Town endogamy, different styles of dress, and dialect differences help establish and maintain the identity of each town. The rarity of intermarriage between towns and the isolation of one town from another probably have been major contributing factors in language divergence and the establishment of dialect differences.

Primary ethnographic sources for the Mam area are Oakes (1951a, 1951b), Valladares (1957), and Wagley (1941,

1949). In addition Wagley (1969) has written an excellent summary of the characteristics of the Northwestern Guatemalan area, which is mostly inhabited by Mam speakers. The Southern Mam area has been almost ignored (Vogt, 1969a:33). The very brief summary presented here relies on the sources mentioned above and on personal experience while doing fieldwork.

The people today are primarily subsistence farmers, relying on the traditional maize, beans, and squash for their sustenance. The area in which they live also supports a wide variety of other crops which come from both the New and Old Worlds, some of which supplement the basic diet, and some of which are farmed for cash (Wagley, 1969:50). The major occupation of the men is to farm and provide food and shelter for their families, while that of the women is to care for the house, children, and provide some assistance with the planting or harvesting as needed. Men, in addition to farming their own lands, frequently travel to the coastal areas of Guatemala and Mexico to work as seasonal labor on the large plantations--one of the few ways they have to earn a cash income (Oakes, 1951b:37). This labor, although common, is viewed as a last resort in times of need, primarily because of the poor working conditions and dreaded lowland diseases which are absent or rarer in the highlands.

Weekly local markets in all towns and some aldeas (hamlets) serve as centers for the exchange of goods.

Most items are bought and sold by women in these markets (Valladares, 1957:59) except for a few things, such as manufactured clothing or large animals, which are traditionally sold by men. Some towns are noted for their "traveling salesmen" who spend time attending markets in the surrounding area to sell particular products from their towns, but there is no actual full-time trader class in the area (Wagley, 1969:61). There is also some craft specialization by town in the Mam area, whereby a particular town produces a single specialty item and sells that product in the area. For instance, people from Colotenango buy pots from Concepción Tutuapa, San Miguel, and Ixtahuacán; buy mats from Jacaltenango and Huehuetenango; thread, blankets, bags, and nets from Concepción Tutuapa; and cotton cloths from Comitancillo (Valladares, 1957:59). Where there are climate differences between towns there may also be crop specialization and crop exportation (Wagley, 1969:50). Craft specialization does not extend to personal clothing, which is hand-woven by women for their families, except in areas where hand-woven cloth is being replaced by footloomed cloth or manufactured menswear. There is an increasing tourist market in hand-woven items, however.

The religion and ceremonial life of the Mam area has been rather well documented in the various sources. It is basically a complex synthesis of Catholic and indigenous belief and ritual. No attempt will be made to

describe the complexities of the religious system here, but it should be pointed out that ritual is often a rich source for linguistic as well as anthropological data, and that the connections between language and culture are sometimes strikingly lucid in ritual. Thus anyone familiar with religion and ritual in the Mam area will find parts of the grammar which will immediately bring to mind aspects of the religious system. For instance, numbers are intimately connected with the calendar, metaphor is important in ritual as well as daily life, direction and location are striking in both the grammar and the ritual.

Men in the Mam area travel to the plantations and other towns for commercial purposes. The former activity places them in limited contact with outsiders, including Ladinos and other Indians; the latter activity may take them to the departmental capital in addition to other towns, but it rarely takes them farther than that. There are many men who have never been to the national capital, which is a good day's travel by bus from most of the Mam towns. Bus service to large parts of the Mam area is infrequent and at times nonexistent, reducing possibilities for long distance travel even further. Women are more restricted in travel outside their towns, since they do not as a rule participate in intertown marketing. An unmarried girl does not travel alone, and a married woman is usually tied down by children and household

duties. Women will travel between their houses and the town center for the local market and church. The local market is, in fact, an important social event where men and women meet with their friends and transact all sorts of business and where young people, of course, court. The young people are exquisitely turned out on these occasions--the girls with their most elaborate blouses and hair styles, the boys as neat as possible.

Since a large portion of the Mam area is relatively isolated in distance from Guatemala City, the people are fairly removed from outside and government influences. There are few Ladinos living in their towns, and less tourism reaches Mam towns than, for instance, Quiché or Cakchiquel towns. Bus service where available is often infrequent and expensive; there are fewer schools with fewer grades than in more central areas; and there is less contact with government agencies and programs. Furthermore, tension between Ladinos and Indians appears stronger and more open than in towns closer to the capital. In Huehuetenango, to take a superficial but indicative example, Indians are forced to the back of the bus, while this never happens in Sacatepéquez or Chimaltenango. Indians do not own any of the small businesses in Ixtahuacán; Indians own a bus line, a hotel, several small stores and more in Comalapa (Chimaltenango).

One of the obvious correlations to this isolation and inaccessibility is that fewer Indians in the Mam area

are bilingual than in any other part of the country except Alta Verapaz. Bilingualism among women is uncommon and among men it is low. In the case of the latter group it seems that while many men speak a little Spanish, it is poor Spanish, sufficient only to carry out the most necessary negotiations in the departmental markets, the municipality, or the plantations. For various reasons, few children complete even six years of schooling--the reasons most often cited are that the parents need the children at home, the schools are too far, the teachers do not attend consistently or do not teach anything when they attend, and that the children do not learn anything anyway because the schools are conducted in Spanish. Learning Spanish is highly valued, especially for boys, because it is seen as advantageous in dealing with the outside, especially in legal matters; but few children learn much. In very recent years the government has instituted a program of castellanización which uses bilingual teachers to offer a pre-first-grade year of education in Spanish literacy using materials prepared in the native language and Spanish. The program has not yet reached many of the schools in the Mam area. In places where a good school exists (i.e., a school where Mam children are taught sufficient Spanish so that they can complete six years of education) parents are often willing to make considerable financial sacrifice to send their children to school. The reasons parents give for

not sending their children to school should not be taken as an absence of value placed on schooling; quite the contrary, the parents are merely making a realistic evaluation of the benefits of poor education in a foreign language by minimally motivated and prepared teachers.

The situation, then, is that Mam is a language spoken by several hundred thousand people in Guatemala and Mexico, and is the only language of many of these people. It is not a written language, nor a national language, nor a prestigious language. It has been relatively little studied (compare linguistic work on Cakchiquel, Quiché, or Yucatec), and the results of the few studies made are fairly inaccessible to Mam speakers. Experiences while conducting the fieldwork, however, point to a deep interest on the part of Mam speakers in knowing how to read and write in their own language and in learning the grammar. The language is not dying and is unlikely to disappear in the foreseeable future. Any linguistic work, especially work which can eventually be shared with the Mam speakers, is of tremendous importance. It is the intention that the results of this analysis will be made available to Mam speakers. Furthermore, every bit of information about a relatively unstudied language is of use to linguistic and anthropological science.

0.2 RESEARCH

The fieldwork on which this analysis is based was undertaken in Guatemala in two periods, from August 1971 to December 1973 and from June to September 1974. During the first period the author was a linguist with the Proyecto Lingüístico Francisco Marroquín (PLFM) in Antigua, Guatemala, under the auspices of the U.S. Peace Corps. The responsibilities entailed by this position were to teach linguistics to a group of twelve students who were native speakers of Quiché, Cakchiquel, or Mam; to teach the Mam students how to produce various educational materials in their language and to supervise that work; and to do the necessary linguistic analysis of Mam for all other aspects of the work. During the second part of the research the grammatical analysis of Northern Mam was continued and a course in Mam derivational morphology was taught to Mam speakers.

The data used for this analysis consist of a Mam-Spanish dictionary compiled by the Mam students at the PLFM, a substantial body of texts and dialogues collected and transcribed by the author and the Mam students and analyzed by the author, data on directionals collected for three hundred transitive verbs, incidental material gathered from educational pamphlets prepared by the Mam students, and various materials elicited directly by the author. All data is on file at the PLFM in Antigua.

0.3 PERSONNEL

The research for this grammar was accomplished with the extensive aid of two linguistically sophisticated native Mam speakers, Juan Maldonado Andrés and Juan Ordóñez Domingo. Both are from the town of San Ildefonso Ixtahuacán and both began working with the PLFM and studying their language in November, 1971. At the time they were bilingual in Spanish and Mam and literate in Spanish; since then they have participated in intensive courses in Mam literacy, phonology, morphology, syntax, Mayan grammar, and dictionary preparation. They have prepared a bilingual Mam-Spanish dictionary, have collected and transcribed texts in Mam, have written a number of pamphlets of an educational nature in Mam, and have written a paper in Spanish describing their work with teaching literacy in Mam (Maldonado and Ordóñez, 1974). They have further contributed to the analysis of Mam undertaken here by eliciting and self-eliciting material on various grammatical themes, by checking and rechecking lexical material with other people in the community, and by participating in and initiating extensive discussions of points of grammar with the author and other members of the staff at the PLFM. It has always been the intent to discuss, insofar as possible, the analysis of Mam with Juan Maldonado and Juan Ordóñez in order to check that analysis with the Mam experts.

Juan Maldonado is twenty-four years old and lives in the aldea of Acal, San Ildefonso Ixtahuacán. Both of his parents are from the same town; his father is bilingual in Spanish and Mam, and his mother is monolingual in Mam. He has had nine years of formal education, all in schools in his town, and is a subsistence farmer. He has for a number of years been interested in community development and has participated in the savings and loan cooperative in his town, voluntary Spanish literacy classes, and programs of Desarrollo de la Comunidad (a community development agency).

Juan Ordóñez is twenty-one years old and lives in the caserío of Chupil, San Ildefonso Ixtahuacán. His father is bilingual in Spanish and Mam; his mother is monolingual in Mam; both are from Ixtahuacán. He completed six years of formal education in his town and then participated in a two-year agricultural course in Chiantla, Huehuetenango. He also has given classes in Spanish literacy.

Many other people of Ixtahuacán contributed to this grammar by recording folklore, helping with data verification, or working with the author and the Mam students in elicitation sessions. A list of these people follows; it is not a complete list of all who have been involved in the work in that many others have made informal contributions.

	aldea
Eustaquio García Ortiz	Granadillo
José Ordóñez Méndez	Chupil
Andrés Maldonado Morales	Acal
Juana Maldonado Andrés	Acal
Juan Morales Ordóñez	Acal
Miguel Velásquez Morales	Acal
Sebastián Morales Maldonado	La Cumbre
Diego Ramírez Maldonado	Laguneta
María Maldonado	Chejoj
Pedro Ordóñez Ortiz	Chejoj
Alonso Ortiz Maldonado	Vega San Miguel
Francisco Maldonado Felipe	Vega San Miguel
José Maldonado Vásquez	Chiquililá
Rafael Maldonado Vásquez	Chiquililá
Diego Domingo Felipe	Papal
José Pérez Ordóñez	Papal
Miguel Morales Ortiz	Papal
Pablo Felipe Gómez	Polojá

0.4 PREVIOUS STUDIES

Early works on Mam are sparse--only a few vocabulary lists and grammatical sketches have been made. The grammar sketches have not been seen by the author; for a review of them see Peck (1951). A bibliography of early works on Mam can be found in The Handbook of Middle American Indians, volume 5.

In recent years several grammatical studies have been made. The first of these is a master's thesis by Edward Sywulka (1948) in which the author briefly describes the phonology and morphology of Mam of San Juan Ostuncalco, a Southern Mam town. Sywulka studied linguistics with Pike, Nida, and Trager, and wrote his grammar according to a modified tagmemic/descriptive framework. He lists and briefly describes the phonemes and morphemes which he found for Southern Mam. Sywulka's later sketch of Mam (1966) uses the same framework but describes the Mam of San Ildefonso Ixtahuacán (Northern Mam). This sketch does not include phonology (although the phonemes are listed in a footnote and the author has by now decided that vowel length is phonemic in Mam), but does include sections on clause and sentence structure as well as morphology. It is quite a brief description of Mam which contains lists of some morphemes, notes on sentence structure, and a spot/filler analysis of the verb clause. A sample text is appended.

Dorothy Peck's master's thesis (1951) continues the analysis begun by Sywulka and for data uses recordings made by Manuel Andrade. Peck is concerned with the syntax of Southern Mam. She includes an inventory of syntactic units, a section on the distribution of classes which is essentially a list of sentences or clauses containing different elements, and a section on features of arrangement of sentences. Sample texts are included. Peck also

makes her analysis according to a descriptive/tagmemic framework.

The most complete of the recent Mam grammars is that by Una Canger (1969). This analysis is a glossematic grammar of the dialect of Mam spoken in Todos Santos (Northern Mam, but quite different from other Northern Mam dialects). Arranged according to glossematic theory, the grammar gives phonological, morphological, and syntactic information and is quite extensive and accurate. Of particular interest are Canger's treatments of underlying phonological shapes and verb structure. This grammar was very helpful in making the present analysis.

There is also a modern teaching course in Mam (Robertson, Hawkins, and Maldonado, n.d.) which includes lessons, texts, and a Mam-Spanish-English/Spanish-Mam-English dictionary. This is based on the Mam of San Ildefonso Ixtahuacán. The principal author, Robertson, has recently completed a dissertation on pronoun distribution in seven Mayan languages, which should include Mam, but this has not yet been seen.

0.5 SCOPE

This work is meant to be a descriptive grammar of the dialect of Mam spoken in Ixtahuacán. Topics which are covered are a brief description of the phonology; grammatical process, which includes morpheme, word,

and root classes, and stem, phrase, and sentence formation; verb semantics, which discusses special semantic and syntactic properties of the verb phrase; and grammatical categories, which is a section on distinctive organizational principles which govern the language.

No complete grammar of this dialect of Mam has been written so far, and this grammar covers topics which are not contained in any of the previous works on Mam. The organization is fairly standard for a descriptive grammar, with the addition of chapters on verb semantics and grammatical categories. These are included in order to explain and illuminate problems of wider interest in Mam and certain grammatical structures necessary to an understanding of the language. Description such as is presented here is requisite to almost any further study of the language because without an understanding of basic structure no further steps can be taken.

The first three chapters should be of particular interest to linguists and language students who need to know details of Mam grammar. The last chapter should be of more general interest to linguists and anthropologists who are concerned with such problems as language universals, language diversity, or world view as revealed through linguistic organization. It is obvious by now that any language can handle almost any problem; of continuing interest is the variety or lack of variety in the choices available to solve each problem and the ways in which

those resolutions can be correlated with cultural and social choices.

1. PHONOLOGY

1.1 PHONEMIC INVENTORY

The phonemic symbols used here and throughout are a practical orthography designed for Mam by Terrence Kaufman and used at the PLFM.

Consonants:

	bilabial	alveolar	alveo-fricated	alveopalatal	retroflex	palatal	velar	postvelar	uvular
Occlusive:	p	t	tz	ch	tx	ky	k	q	7
Glottalized occlusive:	b'	t'	tz'	ch'	tx'	ky'	k'	q'	
Fricative:		s		xh	x		j		
Nasal:	m	n							
Resonant:	w	l				y			
Flap:		r							
Spanish loans:	b	d					g		

Vowels:

front	back		
High: i	u	:	(vowel length)
e	o		(juncture)
Low: a			

1.2 PHONEMIC DESCRIPTION

1.2.1 CONSONANTS

The occlusive phonemes are a series of eight simple or affricated voiceless stops each having a different point of articulation. The glottal stop will be discussed in section 1.2.3. All the stops occur in initial, medial, or final position and all require release in final position. In the cases of /tz, ch, tx, ky, q/ this release is affrication, while for /p, t, k/ it consists of aspiration. Release may also occur optionally before other consonants in clusters. The palatalized stop /ky/ and the velar stop /k/ have restricted and partially complementary distribution. /ky/ only occurs before front vowels and /a/, while /k/ only occurs before back vowels and /a/. Both can occur after front vowels and /a/; only /k/ occurs after back vowels. The two phonemes therefore contrast before /a/ and after /i, e/ while in other vowel environments there is no contrast. The occlusive phonemes with their allophones and examples are:

/p/	[pʰ]	finally	[si:pʰ] /si:p/ 'tick'
	[p]	elsewhere	[pu:x] /pu:j/ 'dust'
/t/	[tʰ]	finally	[r̆Iʔtʰ]/ri7t/ 'solid'
	[t]	elsewhere	[taʔw] /ta7w/ 'pain'
/tz/	[ȼ]		[wIȼ] /witz/ 'hill, mountain'

/ch/	[č]		[kʊč] /kuch/ 'pig'
/tx/	[č̣]		[ɓu:č̣] /b'u:tx/ 'boiled corn'
/ky/	[k^{y}]		[k^{y}aq^{x}] /kyaq/ 'hot'
/k/	[k^{h}]	finally	[kʊʔk^{h}] /ku7k/ 'squirrel'
	[k]	elsewhere	[šk̟o:'↓yə] /xko:7ya/ 'tomato' †
/q/	[q^{x}]	finally	[^{g}wu:q^{x}] /wu:q/ 'seven'
	[q]	elsewhere	[qɛʔn] /qe7n/ 'gourd to keep tortillas warm'

The glottalized occlusives are unit phonemes which contrast with plain occlusives plus glottal stop. Phonetically /tz', ch', tx', ky', k'/ are glottalized stops, with glottalization occurring almost simultaneously or even preceding the stop onset. /b', t', q'/ are imploded stops. They are voiced or partially voiced in initial or medial position and are voiceless in final position. Before a pause they are released finally. The distribution of /ky', k'/ is similar to that of /ky, k/. The glottalized occlusive phonemes with their allophones and examples are:

/b'/	[ɓ]	finally	[sIɓ] /sib'/ 'smoke'
	[ɓ]	elsewhere	[ɓɑ̰:] /b'a:/ 'mole'
/t'/	[ɗ̣]	finally	[šxɛɗ̣] /xhjet'/ 'stomach of animals'
	[ɗ]	elsewhere	[ɗʊ'ɗəɳ] /t'ut'an/ 'watery'
/tz'/	[ȼʔ]		[ȼʔʊȼʔ] /tz'utz'/ 'coati'
/ch'/	[čʔ]		[pΩcʔ] /poch'/ 'bedbug'

† [↓] will be used here to indicate the allophone of /7/ which consists of falling pitch without actual closure.

/tx'/ [ʧ̬ˀ] [ʧ̬ˀΩʧ̬ˀ] /tx'otx'/ 'earth, land'

/ky'/ [kʸˀ] [kʸˀaqˣ] /ky'aq/ 'flea'

/k'/ [kˀ] [kˀa^:] /k'a:/ 'bitter'

/q'/ [q̡] finally [ʃ̬la^:q̡] /xhla:q'/ 'young man, boy'

[ɡ̡] elsewhere [ɡ̡ɛˀɳ] /q'e7n/ 'booze'

Fricatives occur in all positions. /j/ is postvelar in the environment of postvelar consonants and velar elsewhere. The phonemes with their allophones and examples are:

/s/ [s] [si:ɬ] /si:7/ 'firewood'

/xh/ [ʃ̬] [ʃ̬a^:l] /xha:l/ 'frog'

/x/ [ʃ̬̣] [ʃ̬̣xa^:l] /xja:l/ 'person'

/j/ [x̣] next to postvelars [qx̣a^:] /qja:/ 'our house'

[x] elsewhere [xo:x] /jo:j/ 'crow'

Nasals occur in all positions. /m/ has |m| as an allophone; the allophonic conditioning of /n/ is complex.

1. /Cn#/ is realized as [Cn#].
2. /nn#/ is realized as [n#].
3. /Vn#/ is realized as [Vɳ#].
4. /n {-b'il}/ is realized as [nɓIl].
5. /VnC (except /b'/) V/ is realized as [VɳCV].
6. /n Occlusive or /y// is realized as [homorganic N Occlusive or /y/].
7. All other /n/ are realized as [n].

Examples:

1. [ʔa^:ʦˀn] /a:tz'n/ 'salt'
2. [taxbla^:'n] /tajb'la:nn/ 'it's useful'

3. [pǽˀΩŋ] /ptz'on/ 'sugarcane'

4. [gɑ̈:'nɓIɪ] /q'a:nb'il/ 'medicine'

5. [x̌ɠanpI'ǽˀ] /xq'anpitz'/ 'a small bird'

but [qa'mɓəx] /qamb'aj/ 'foot and lower leg'

[tqaŋ] /tqan/ 'his/her foot'

6. [mpɑ̈:'yə]/mpa:ya/ 'my bag'

[sxɛñ k^{y}] /sjenky/ 'guitar'

[ɠañy] /q'any/ 'you, familiar (between males)'

[ʔɑ̈:'ŋqɓIɪ] /a:nq'b'il/ 'life'

[ɓΩŋk^{h}] /b'onk/ 'fat'

[ʔʊnt^{h}] /unt/ 'brains'

7. [nmo:'xə] /nmo:ja/ 'my double thread'

[nɛʔl] /ne7l/ 'sheep'

[ʔanʊ'p^{h}] /anup/ 'silk-cotton tree'

[n^{g}wi:'x̌ə] /nwi:xha/ 'my cat'

As can be seen in the second example under (5) above and the first example under (6) the discreteness between /m, n/ breaks down before bilabial occlusives. In the case of /qamb'aj/ 'foot and lower leg' the underlying form is discoverable through the possessed form /tqan/ 'his/her foot'. If, however, the bilabial occlusive is not separable, the underlying phoneme cannot be recovered, for example: [x̌kʊmɓu:'l] /xkumb'u:l/ 'dove'. An example of /m/ in a non-neutralized environment is [mo:x̌] /mo:x/ 'june bug'.

Resonants occur in all positions. /w/ is velarized before back vowels and after /n/. The resonant

phonemes with their allophones and examples are:

/w/ [^{g}w] before back vowels, after /n/ [^{g}wo:↓] /wo:7/ 'toad'

[nᵍwi:'šə] /nwi:xha/ 'my cat'

[w] elsewhere [waˆ:↓x] /wa:7j/ 'tortilla'

/l/ [l] [laˆ:] /la:/ 'chichicaste'

/y/ [y] [yaˆ:ɓ] /ya:b'/ 'sick'

The flap occurs infrequently. A bilingual speaker may trill the /r/ in Spanish loans with the trill, but monolingual speakers never distinguish the flap and the trill.

/r/ [r] [xΩřa:'t^{h}] /jora:t/ 'quickly'

[řIʔt^{h}] /ri7t/ 'solid'

The combination of /t/ plus /x/ is written as /t-x/ to distinguish it from /tx/. This particular cluster only occurs over morpheme boundaries.

In Spanish loans three additional consonants are found: /b, d, g, /. /b/ also occurs in one native Mam word, /baqa/ 'scarcely'. In old loans or in the speech of monolinguals these phonemes may be changed to a native Mam phoneme, usually the similarly articulated voiceless stop or voiced resonant, but many words are often pronounced with the Spanish phonemes. Examples:

/b/ [b] [baˆ:řk^{h}] /ba:rk/ 'boat' (Spanish barco)

/d/ [d] [mu:'ndə] /mu:nda/ 'world' (Spanish mundo)

/g/ [g] [gaˆ:'nə] /ga:na/ 'in vain' (Spanish gana 'desire')

Minimal Pairs:

p ≠ b'

/pa:/ 'bag'

/b'a:/ 'mole'

t ≠ t'

/ta:l/ 'her son (of a woman)'

/t'a:l/ 'liquid'

tz ≠ tz'

/tzankl/ 'bunch of hair or thread without order, lying there'
/tz'ankl/ 'something smooth like an orange, lying there'

ch ≠ ch'

/chi7l/ 'basket'

/ch'i7l/ 'edible grasshopper'

tx ≠ tx'

/txu:txan/ 'blister-like'

/tx'u:tx'/ 'granary'

ky ≠ ky'

/kyaq/ 'hot'

/ky'aq/ 'flea'

k ≠ k'

/uk/ 'a bug like a bedbug'

/uk'/ 'louse'

q ≠ q'

/qe7n/ 'gourd to keep tortillas warm'

/q'e7n/ 'booze'

t ≠ tz

/te:t/ 'toy to divert children'

/tze:t/ 'laugh'

t' ≠ tz'

/t'ut'an/ 'squishy'

/tz'utz'/ 'coati'

tz ≠ ch

/tza:k'/ 'toothy'

/cha:k'/ 'tall and skinny'

tz' ≠ ch'

/tz'o:k/ 'he/she came in'

/ch'o:k/ 'plow'

ch ≠ tx

/chil/ 'rattle'

/txil/ 'quetzal tail'

ch' ≠ tx'

/ch'ak/ 'mud'

/tx'a7k/ 'grain'

ch ≠ ky

/tchi:xh/ 'its dirt'

/tkyi:xh/ 'its fish'

ch' ≠ ky'

/ich'/ 'mouse'

/iky'/ 'passed by'

ky ≠ k

/ch'ikyl/ 'vertical' /kyaq/ 'hot'

/chi:kl/ 'chicle' /ka7ch/ 'burst grain'

ky' ≠ k

/nchme:ky'a/ 'my turkey'

/nchme:ka/ 'my brown wax'

ky ≠ k'

/kya:/ 'grinding stone'

/k'a:/ 'bitter'

k ≠ q

/ku:kxh/ 'lightning bug'

/qu:q/ 'sandy farmland in cold climate'

k' ≠ q'

/k'o:j/ 'mask'

/q'o:j/ 'fight, anger'

s ≠ t ≠ tz

/se:t/ 'place firewood in the fire'

/te:t/ 'toy to divert children'

/tze:t/ 'laugh'

xh ≠ ch

/xhiky/ 'rabbit'

/chiky'/ 'blood'

x ≠ tx

/xi:n/ 'spider'

/txi:n/ 'little girl'

j ≠ k

/jo:x/ 'first weeding of the corn'

/ko:x/ 'lame'

s ≠ xh ≠ x

/po:s/ 'peanut shell without seed'

/po:xh/ 'scarecrow'

/po:x/ 'single grub of a kind of large ant'

m ≠ n

/mo:j/ 'double thread'

/no:j/ 'fill up'

1.2.2 VOWELS

There are ten vowels in Mam distinguished as to

point of articulation (front, mid, back, low, high) and length (long, short). Long vowels tend to be higher than short vowels. Vowels are also higher before /n/ and lower before /7/. In the environment of glottalized consonants or glottal stops vowels are pronounced with considerable vocal fry ("creaky voice") and long vowels have a long low off-glide accompanied by a drop in pitch before glottal stop. Low and mid vowels have a high off-glide before palatals. The phonemes with examples are:

/i/ [I] [ʔIčʔ] /ich'/ 'mouse'

/e/ [ɛ] [čɛʔw] /che7w/ 'cold'

/a/ [a] [čap^{h}] /chap/ 'crab'

/o/ [ɷ] [pɷčʔ] /poch'/ 'bedbug'

/u/ [ʊ] [kʊǵʔ] /kutz'/ 'humming bird'

/i:/ [i:] [ʔi:č] /i:ch/ 'chile'

/e:/ [e:] [ɓe:] /b'e:/ 'road'

/a:/ [a^:] [k^{y}a^:] /kya:/ 'grinding stone'

/o:/ [o:] [xo:x] /jo:j/ 'crow'

/u:/ [u:] [ʔu:ǵ] /u:tz/ 'cradle'

Short unstressed vowels which follow the stressed vowel in a word tend to be neutralized to [ə] (see 1.3 for a discussion of stress). The underlying form of these vowels is unrecoverable unless the word undergoes some morphophonemic change in another form which lengthens or stresses the neutralized vowel. The neutralized

vowel creates problems for the practical orthography in that it is not heard consistently as one of the short vowels by the native speaker, nor is it heard as a sixth short vowel. Consequently a new symbol is not acceptable for writing a neutralized vowel, and the native speaker uses /a/, /e/, or /i/ for these vowels, often inconsistently. In tape transcriptions the enclitic [ɕəŋ] has been written /tzan/, /tzen/, /tzin/, or /tzn/ by the same transcriber. Whenever possible a neutralized vowel will be written as /a/. It can not be indicated by nothing (deleting the vowel altogether) because a neutralized vowel contrasts with no vowel in final position.

In roots and stems a short unstressed vowel preceding the stressed vowel and following a consonant tends to be dropped. Again, the dropped vowel is unrecoverable unless it appears in another form which undergoes appropriate morphophonemic changes. For instance, the forms

/ma waq'na:ya/ 'I worked'

/aq'u:ntl/ 'work'

show that a /u/ has been dropped from the verb stem. Similarly,

/ptz'on/ 'sugarcane'

/npa:tz'ana/ 'my sugarcane'

show a dropped /a/ in the root. This pair is also a good

example of vowel neutralization after a stressed vowel (in the possessed form) which is recoverable when stress moves to the otherwise neutral vowel (in the unpossessed form). Vowel dropping leaves many consonant clusters, which are a distinctive phonological characteristic of Mam.

There are no vowel clusters of dissimilar vowels. Consequently long vowels are not analyzed as geminate clusters. Only one long vowel is permitted in a word.

Minimal Pairs:

i ≠ e

/iky'/ 'passed by'

/eky'/ 'chicken'

e ≠ a

/me7xh/ 'just developing ear of corn'

/ma7xh/ 'tobacco'

a ≠ o

/ch'ak/ 'mud'

/ch'ok/ 'magpie'

o ≠ u

/ko7k/ 'cacaxte (wooden back pack)'

/ku7k/ 'squirrel'

i: ≠ e:

/nb'i:ya/ 'my name'

/nb'e:ya/ 'my road'

e: ≠ a:

/b'e:/ 'road'

/b'a:/ 'mole'

a: ≠ o: ≠ u:

/q'a:q'/ 'fire'

/q'o:q'/ 'chilacayote (a type of squash)'

/q'u:q'/ 'quetzal (archaic)'

i ≠ i:

/ch'im/ 'straw'

/ch'i:m/ 'pancreas'

e ≠ e:

/b'ech/ 'sprout'

/b'e:ch/ 'flower'

a ≠ a:

/awal/ 'plant'

/awa:l/ 'planter'

o ≠ o:

/ch'ok/ 'magpie'

/ch'o:k/ 'plow'

u ≠ u:

/us/ 'fly'

/u:tz/ 'crib'

1.2.3 GLOTTAL STOP

The glottal stop is nonphonemic initially in the word; all vowel initial words have a glottal onset. In medial and final position glottal stop contrasts with its absence and is phonemic. Medially if it follows a consonant it distinctly occurs after the consonant. There is only one example of glottal stop finally after a consonant and in this case it is realized during or slightly before the onset of the consonant. The example is in the morpheme {-a} 'first person possessive enclitic' which has an alternant /-y7/ after vowels.

[njæ:ʔ̯y] /nja:y7/ 'my house'

Glottal stop after long vowels is realized as falling pitch without actual cessation of breath (symbolized here as [↓]). Examples are:

/7/ [ʔ] [ʔI'ʔɛ̀əl] /i7tzal/ 'Ixtahuacán'

[↓] [si:↓] /si:7/ 'firewood'

Glottal stop at times behaves like a consonant and at times like a vowel feature. The first person possessive prefix for nouns is /n-/ before consonants and /w-/ before vowels. Generally vowel initial nouns lose the nonphonemic glottal stop onset under possession and prefix /w-/. A few nouns, however, do not lose the glottal stop, in which case they prefix /n-/, just like a consonant initial noun. In the unpossessed form these words have no initial contrast with other vowel initial

words, so the /7/ is still not phonemic initially. It must be inserted after possession for those words that maintain it. All Spanish loans, unlike the pattern for most Mam words, follow the pattern of maintaining glottal stop under possession, probably because of analogy with the more common consonant initial possession pattern.†

/anup/ 'silk-cotton tree'

/n7anupa/ 'my silk-cotton tree'

Furthermore, glottal stop can separate vowels, as can any consonant.

/pe7e:t/ 'put within a fenced area'

After vowels and before consonants or finally, glottal stop is more like a vowel feature. Vowel initial suffixes or enclitics which occur after a vowel either insert a /y/ glide between the vowels or synthesize the vowels. This rule holds for a vowel followed by glottal stop.

/y/ glide: /nja:ya/ 'my house' from /ja:/ 'house'

/nsi:7ya/ 'my firewood' from /si:7/ 'firewood'

Synthesis: /aq'ne:t/ 'work' from /aq'na-/ 'stem' + /-e:t/ 'passive'

/che:7t/ 'grind corn' from /che:7-/ 'stem' + /-e:t/ 'passive'

† In teaching Mam speakers to read and write, it is necessary to teach them to write initial glottal stop by rote, implying that it is nonphonemic in this position. At the PLFM the Mam students thought it unnecessary.

Stress (1.3) falls on vowels followed by glottal stop if there is no long vowel in the word. Since stress rules in general are conditioned by vowel features such as length, and other consonants do not have this effect on stress, glottal stop here seems to be a vowel feature rather than a consonant.

Minimal Pairs:

7 ≠ absence

/ch'o7k/ 'rooster's comb'

/ch'ok/ 'magpie'

7 ≠ q'

/ta:7/ 'his water'

/ta:q'/ 'his vine'

C7 ≠ C'

/t7anup/ 'his silk-cotton tree'

/t'a:l/ 'liquid'

1.2.4 JUNCTURE

Juncture is indicated by a space. It is defined both phonologically and grammatically. Words have one and only one stress and have no more than one long vowel. Therefore juncture must occur somewhere between two stresses or two long vowels in a segment. The aspirated or affricated release of simple occlusives in final position indicates juncture, as does the voicelessness or nonrelease of the imploded occlusives. Furthermore, a

pause can generally occur at juncture, although in rapid speech it usually does not occur. Aside from these criteria, juncture can be determined grammatically.

Morphemes consist of prefixes, roots, suffixes, or enclitics. Clitics are almost always postposed to the word because of phonological and immediate constituent criteria (the only exception seems to be qa 'plural', which can be preposed to the word). Juncture therefore occurs before roots or prefixes, and after roots, suffixes, or enclitics. The only real problems in juncture analysis are in the verb phrase: Are aspects prefixes or words? Are directionals roots or affixes? Are Set B person markers prefixes or words? Some aspects are phonologically bound and some are not (those that contain vowels). The phonologically free aspects can take enclitics, and so are written with juncture, while the phonologically bound aspects are written without juncture. Directionals are derived from free roots and are preposed to the main verb in the verb phrase. Pause can occur after directionals, and they can also receive stress, although in connected speech they usually do not. For these reasons and also because the word in Mam is usually short, directionals are written with juncture. Set B person markers all contain vowels and therefore are not phonologically bound. However, Set A person markers are phonologically bound and with the verb 'to go' Set B person markers are also phonologically bound:

Set B	to go	
chin-	ma chi:nxa	'I went'
-	ma txi	'he/she went'
qo-	ma qo7x	'we went'
chi-	ma che7x	'they went'

Therefore all person markers are written without juncture. The major elements of the verb phrase are therefore written as follows:

unbound aspect #
bound aspect + Set B + Directional # Set A + Stem + Enclitics

1.3 STRESS

Stress is not phonemic in Mam. Every word has one stress, according to the following rules:

1. Stress falls on a long vowel in the word.
2. If there is no long vowel, stress falls on the vowel preceding the last glottal stop in the word.
3. If there is no long vowel and no glottal stop, stress falls on the vowel preceding the last consonant in the root.
4. If none of the above conditions apply, stress falls on the only vowel in the root.

That is, stress is conditioned by long vowels and glottal stop and never falls on suffixes unless they contain long vowels or glottal stop. Examples:

1. [ʔaɢu:'ntl] /aq'u:ntl/ 'work'
   [waɢnɑ:yə] /waq'na:ya/ 'I worked'
2. [puʔla'ʔ] /pu7la7/ 'dipper'
3. [spI'kʸʔə] /spiky'a/ 'clear'
   [špIča'q̓] /xpichaq'/ 'raccoon'
4. [tlʘ'kʔ] /tlok'/ 'root'
   [ɓa'lə] /b'ala/ 'maybe' ({-la} is an enclitic)

1.4 THE SYLLABLE

Syllables have as many as three consonants initially and four consonants finally. The vowel can be long or short, with or without glottal stop.

(C)(C)(C)V(:)(7)(C)(C)(C)(C)

That is, consonants can cluster up to three or four in any position and vowels never cluster. Words may begin or end with consonant or vowel. There are no apparent restrictions as to which consonants may cluster. It should be noted, however, that clustering is a result of vowel dropping, or occurs over morpheme boundaries. The only clusters which occur finally in root morphemes are of the shape nC (see 2.3.7).

1.5 MORPHOPHONEMICS

Morphophonemic alternation primarily involves vowel dropping, vowel neutralization, vowel synthesis,

/y/ insertion between vowels, glottal stop and glottalized consonant alternation, the movement of glottal stop toward long vowels, and nasal alternation.

1.5.1 VOWEL DROPPING

Short unstressed vowels occurring before the stressed vowel in a root are often dropped. If the root is used in a form in which stress is shifted to another vowel, the dropped vowel will reappear. If no such forms occur, the dropped vowel is not synchronically recoverable. Examples:

/xjab'/ 'shoe'

/nxa:jb'aya/ 'my shoe'

/tzyu:l/ 'grab, verbal noun'

/tzuyb'il/ 'instrument for grabbing'

The first pair shows a dropped /a/ between /x/ and /j/; the second pair shows a dropped /u/ between /tz/ and /y/.

Vowels are also always dropped between two /y/s. For example, /xkó:7ya/ 'tomato' adds the enclitic /-ya/ under possession, and the resultant form is /nxko:7yya/ 'my tomato'.

1.5.2 VOWEL NEUTRALIZATION

Short unstressed vowels occurring after the stressed vowel in a word tend to be neutralized to [ə]. If there

is a form in which the neutralized vowel receives stress it can be recovered; if such a form does not exist it is unrecoverable synchronically. Example:

[tpǽ:'ǽʔəŋ] /tpa:tz'an/ 'his/her sugarcane'

[pǽʔΩŋ] /ptz'on/ 'sugarcane'

The second word in this pair shows that the underlying form of the neutralized vowel in the first word is /o/. In another example, the enclitic [ǽəŋ] /tzan/ 'well (connective)' never receives stress and therefore the underlying form of the vowel is not recoverable.

1.5.3 VOWEL SYNTHESIS

If a vowel initial suffix or enclitic follows a vowel final stem, the two vowels may be synthesized. The particular suffixes which choose synthesization rather than the insertion of a /y/ glide between the two vowels are morphologically conditioned. {-e:t} 'passive' requires synthesization:

/aq'na-/ 'work (stem)'

/aq'ne:t/ 'work (passive)'

1.5.4 /y/ INSERTION

In other cases, also morphologically conditioned, if a vowel initial suffix or enclitic follows a vowel final stem, a /y/ glide is inserted between the two vowels. The person enclitics {-a} require /y/ insertion:

/ja:/ 'house'

/nja:ya/ 'my house'

1.5.5 GLOTTAL STOP AND GLOTTALIZED CONSONANT ALTERNATION

Glottal stop may alternate with glottalized consonants in final position, usually in free variation. An exception is the morpheme {-e:7} which derives intransitive verbs from positional roots, and in final position always has the form /-e:7/. If suffixes (not enclitics) are added, it has the form /-e:b'/.

/txulch/ 'quiet'

/ma txule:7/ 'he/she became quiet'

/ktxule:b'al/ 'he/she will become quiet'

Examples of /7/ in free variation with glottalized consonants are:

/we:ky'a/ ∿ /we:y7/ 'it's mine'

/kub'/ ∿ /ku7/ 'down (directional)'

/tjaq'/ ∿ /tja7/ 'underneath it'

A very few verbs that begin with a glottalized consonant lose that consonant in some forms, which may be similar to the alternation described above.

/q'o:t/ 'give'

/q'o:ntza/ ∿ /antz/ 'give me!'

/q'i:t/ 'take/bring'

/ma txi wi:7na/ 'I took it'

Glottal stops which occur before glottalized consonants usually disappear:

/ku7/ 'down' + /b'aj/ 'finish' → /kub'aj/ 'finish down'

There are exceptions to this tendency, however, for example:

/-b'ji7b'il/ 'nominalizing suffix (#61)'

/txa7q'/ 'the action of crunching a flea'

1.5.6 MOVEMENT OF GLOTTAL STOP TOWARD LONG VOWELS

Glottal stop tends to move toward long vowels. There are no words which have glottal stop after a short vowel if there is a long vowel in the word. For example, the morpheme {-7n} derives present participles from transitive verbs, but only appears in this form if the root has a short vowel. If the root has a long vowel followed by a resonant, the glottal stop follows the long vowel in the participle form; if the root has a long vowel followed by a nonresonant, the glottal stop is dropped in the participle form.

/b'iye:t/ 'kill'; /b'iyo7n/ 'killing'

/sjo:rat/ 'snore'; /sjo:7ran/ 'snoring'

/li:pat/ 'fly'; /li:pan/ 'flying'

1.5.7 NASAL ALTERNATION

Although words can end in /m/, there are a number of words which change a base form /m/ in final position to /n/. If a suffix is added to these words the /m/

reappears.

Examples:

/po:n/ 'incense'

/po:mal/ 'burn incense, perform rites'

/xb'a:lan/ 'clothes'

/xb'alami:l/ 'dress'

Final /n/ plus /l/ is reduced to /n/, even over an intervening vowel (which is dropped).

Examples:

/po:n-/ 'arrive there' + /-al/ 'potential' → /po:l/

/ta:n/ 'sleep' + /-al/ 'potential' → /ta:l/

2. GRAMMATICAL PROCESS

2.1 MORPHEME CLASSES

Morphemes in Mam are either roots, clitics, or affixes. Roots fall into several classes which are matched by corresponding stem and word classes, except for positionals, which are a root class only. The root classes and their derivations are fully discussed in sections 2.3, Root Classes; and 2.4, Stem Formation.

There are both preclitics and enclitics, and at least one clitic which can be either preposed or postposed to the word. Various clitics accompany words of any class, and even some affixes. Clitics will be fully discussed in sections 2.2, Word Classes (for the paradigmatic person enclitics); 2.5, Phrase Formation (person enclitics); and 2.6, Sentence Formation (syntactic enclitics).

Affixes consist of both prefixes and suffixes, and are inflectional or derivational. Inflection is discussed under section 2.2, Word Classes; and 2.3, Root Classes. Derivation is discussed under section 2.4, Stem Formation.

2.2 WORD CLASSES

Word classes are defined both inflectionally and syntactically. They are verbs, nouns, adjectives, affect words, and particles. Most of these include several subclasses.

2.2.1 VERBS

All verbs are inflected for person and for aspect or mode. Two major sets of prefixed allomorphs indicate person: Set A and Set B. Set A serves as the agent of transitive verbs and the possessor of nouns; Set B is the patient of transitive verbs and the subject of intransitive verbs and of pronouns. In certain types of subordinate constructions, described in section 2.6, Set A may replace Set B as the patient of transitive verbs or the subject of intransitive verbs. Accompanying the sets of person prefixes are person enclitics. Together the prefixes and enclitics comprise the full person system, as follows:

	Set A	Set B	Enclitics
1 singular	n- ∿ w-	chin-	a ∿ ya
2 singular	t-	Ø ∿ tz- ∿ tz'- ∿ k-	a ∿ ya
3 singular	t-	Ø ∿ tz- ∿ tz'- ∿ k-	
1 plural exclusive	q-	qo-	a ∿ ya
1 plural inclusive	q-	qo-	
2 plural	ky-	chi-	a ∿ ya
3 plural	ky-	chi-	

The allomorphs are primarily phonologically conditioned.

{n- ∿ w-} /w-/ occurs before vowels; /n-/ before consonants.

{Ø ∿ tz- ∿ tz'- ∿ k-} /k-/ is used in the potential; /tz-, tz'-/ occur before vowels in the non-potential;

/tz-/ only occurs with the roots u:l 'arrive here' and iky' 'pass by', while /tz'-/ occurs with all other vowel initial roots and stems; the prefix is unmarked before consonants in the nonpotential.

{á ∿ ya} /ya/ occurs after vowels, /a/ after consonants. After vowels, /ya/ varies freely with the forms /ky'a, y7/ for first person only.

Example of a transitive verb with Set A agent (Ø patient):

Stem = tze:q'a- 'hit'

Elements are aspect, patient, agent, stem, enclitic.

ma Ø.n.tze:q'a.ya	'I hit it'
ma Ø.t.tze:q'a.ya	'you hit it'
ma Ø.t.tze:q'a	'he/she hit it'
ma Ø.q.tze:q'a.ya	'we hit it (not you)'
ma Ø.q.tze:q'a	'we-all hit it'
ma Ø.ky.tze:q'a.ya	'you-all hit it'
ma Ø.ky.tze:q'a	'they hit it'

Example of an intransitive verb with Set B subject:

Stem = b'e:t- 'walk'

Elements are aspect, subject, stem, enclitic.

ma chin.b'e:t.a	'I walked'
ma Ø.b'e:t.a	'you walked'
ma Ø.b'e:t	'he/she walked'
ma qo.b'e:t.a	'we walked (not you)'
ma qo.b'e:t	'we-all walked'
ma chi.b'e:t.a	'you-all walked'
ma chi.b'e:t	'they walked'

Both second and third persons are indicated by the same prefix, while first person is indicated by a different prefix. Number is indistinguishable from person. The prefixes, then, mark presence or absence of first person in singular or plural. First person plural exclusive forms refer to us (a group) as opposed to you (another group), so the enclitic on the first person forms excludes second person, not third person. The enclitic used with the second person forms clearly has a different function; that of marking the presence of second person. Absence of an enclitic implies its opposite. The functions of the prefixes and enclitics can be shown as follows:

	Prefixes		Enclitics
A.	+1sg	A.	-2sg
B.	-1sg	B.	+2sg
C.	+1pl	C.	-2pl
D.	-1pl	D.	+2pl

PreA + EncA → 1sg (+1sg, -2sg)

PreB + EncB → 2sg (-1sg, +2sg)

PreB → 3sg (-1sg, -2sg)

PreC + EncC → 1pl excl (+1pl, -2pl)

PreC → 1pl incl (+1pl, +2pl)

PreD + EncD → 2pl (-1pl, +2pl)

PreD → 3pl (-1pl, -2pl)

Note that PreA is always accompanied by EncA, because the singularity of PreA demands exclusion of second person.

Aspects are preposed to the verb. They are:

{ma} 'recent past'

{o} 'past'

{n-} 'progressive'

{ok} 'potential'

{x-} 'recent past subordinated'

{Ø-} 'past subordinated'

All but {ok} are obligatory. The aspects with vowels ({ma}, {o}, {ok}) are phonologically independent and may at times be separated from the verb or combine with enclitics. The remaining aspects are phonologically dependent and are never separated from the verb. {x-} synthesizes with certain of the person markers in Set B:

x- + chin- → xhin-

x- + tz-, tz'- → s-

x- + chi- → xhi-

In other environments it is realized as /x-/. {Ø-} also synthesizes with Set B person markers, with the result of subtracting the initial consonant of the person prefixes:

Ø- + chin- → in-

Ø- + tz-, tz'-, k- → --

Ø- + qo- → o-

Ø- + chi- → i-

Mode is indicated by suffixes which follow the verb stem. These suffixes are different for transitive and intransitive verbs, and serve to indicate potential or imperative. They are:

	Potential	Imperative
Transitive:	-a7	-m
Imperative:	-l	--

{-l} follows the stem formative vowel (section 2.4.1) and lengthens the vowel of a root which ends in a short vowel (this refers to the root vowel, not the stem formative). {-l} also synthesizes with the compounding directionals {-x} 'away' and {-tz} 'toward':

ke:lax	'he will go out'	k- (-1sgB) + e:l (go out) + -al (pot) + -x (away)
ke:latz	'he will come out'	k- + e:l + -al + -tz
ko:kax	'he will go in'	k- + o:k + -al + -x
ko:katz	'he will come in'	k- + o:k + -al + -tz
kja:wax	'he will go up'	k- + ja:w + -al + -x
kja:watz	'he will come up'	k- + ja:w + -al + -tz

kb'elax	'he will go down'	k- + kub' + -al + -x
kb'elatz	'he will come down'	k- + kub' + -al + -tz
ka:jatz	'he will come back'	k- + a:j + -al + -tz
kiky'ax	'he will go to the other side'	k- + iky' + -al + -x
kiky'atz	'he will come to this side'	k- + iky' + -al + -tz

With the potential mode the potential aspect {ok} can be used optionally. No aspect is used with the imperative mode. If a construction is neither potential nor imperative, aspect is obligatory. The potential mode is used very rarely with transitive verbs that do not have directionals.

There are two major classes of verbs: transitive and intransitive.

2.2.1.1 TRANSITIVE VERBS

Transitive verbs use Set B to indicate the patient, Set A to indicate the agent, and the transitive forms of the suffixes of mode. (Set A replaces Set B in certain subordinate constructions; see 2.6.5.2.) Transitive verbs can omit the agent entirely to express an unknown or indefinite agent. With the imperative, the person prefix for second person singular (PreB) is omitted, as the unmarked imperative. The patient is always present, although frequently indicated by the prefix for non-first person singular (PreB) in which case it is unmarked and unspecific.

Although there are two sets of prefixes to indicate the agent and patient of a transitive verb, there is only one set of enclitics, which refers to either the agent or both the agent and the patient. If the agent does not require an enclitic, then the patient cannot have an enclitic. If the agent does require an enclitic, then the patient may or may not be indicated by the same enclitic. Consequently first person involvement is clear, but there may be ambiguity as to second person involvement. Partly because of this Mam speakers prefer to use intransitive forms expressing only the agent or the patient, especially if the patient is not third person. The following table shows the logically possible combinations of agent and patient incorporated into the verb, and the actually realized combinations.

Stem = tze:q'a- 'hit'

Elements are aspect, patient, agent, stem, enclitic

Logically Possible:	Actual Forms:	Gloss:
1sg → 2sg 1sg → 3sg	ma Ø.n.tze:q'a.ya	'I hit you/him/her/it'
1sg → 2pl 1sg → 3pl	only possible with a directional (e.g. ok) ma ch.ok n.tze:q'an.a	'I hit you-all/them'
2sg → 1sg	ma chin.t.tze:q'a.ya	'you hit me'
2sg → 3sg	ma Ø.t.tze:q'a.ya	'you hit him/her/it'
2sg → 1pl excl	ma qo.t.tze:q'a.ya	'you hit us'
2sg → 3pl	ma chi.t.tze:q'a.ya	'you hit them'

3sg → 1sg	not possible	
3sg → 2sg	not possible	
3sg → 3sg	ma Ø.t.tze:q'a	'he/she/it hit him/her/it'
3sg → 1pl excl	not possible	
3sg → 1pl incl	ma qo.t.tze:q'a	'he/she/it hit us-all'
3sg → 2pl	not possible	
3sg → 3pl	ma chi.t.tze:q'a	'he/she/it hit them'
1pl excl → 2sg	ma Ø.q.tze:q'a.ya	'we hit you/him/her/it'
1pl excl → 3sg		
1pl excl → 2pl	ma chi.q.tze:q'a.ya	'we hit you-all/them'
1pl excl → 3pl		
1pl incl → 3sg	ma Ø.q.tze:q'a	'we-all hit him/her/it'
1pl incl → 3pl	ma chi.q.tze:q'a	'we-all hit them'
2pl → 1sg	ma chin.ky.tze:q'a.ya	'you-all hit me'
2pl → 3sg	ma Ø.ky.tze:q'a.ya	'you-all hit him/her/it'
2pl → 1pl excl	ma qo.ky.tze:q'a.ya	'you-all hit us'
2pl → 3pl	ma chi.ky.tze:q'a.ya	'you-all hit them'
3pl → 1sg	not possible	
3pl → 2sg	not possible	
3pl → 3sg	ma Ø.ky.tze:q'a	'they hit him/her/it'
3pl → 1pl excl	not possible	
3pl → 1pl incl	ma qo.ky.tze:q'a	'they hit us-all'
3pl → 2pl	not possible	
3pl → 3pl	not possible	

Thus the pairs 1sg → 2sg, 1sg → 3sg;
1sg → 2pl, 1sg → 3pl;
1pl excl → 2sg, 1pl excl → 3sg;
1pl excl → 2pl, 1pl excl → 3pl
are not different because there is no way to distinguish the patient when the agent necessitates use of the enclitic.

Furthermore, the combinations 3sg → 1sg
3sg → 2sg
3sg → 1pl excl
3sg → 2pl
3pl → 1sg
3pl → 2sg
3pl → 1pl excl
3pl → 2pl
are not realized because the agent does not take an enclitic and therefore the patient cannot.

The combination 3pl → 3pl seems to be impossible only for semantic reasons; it is too confusing to specify this combination through perfixes, so separate noun phrases are used instead. Separate noun phrases can always be used to indicate agent and patient, or to clarify them, so that the morphologically impossible combinations of agent and patient are still able to be expressed in other ways.

One transitive verb se7- 'do' is defective and only occurs with the interrogative particle ti: 'what?':

ti: q.se7 'what are we going to do?'

2.2.1.2 INTRANSITIVE VERBS

Intransitive verbs use only one set of person markers to indicate the subject, and use the intransitive forms of the suffixes of mode. The subject is normally indicated by Set B person markers, but Set A is used in certain subordinate constructions. There is a subclass of intransitive verbs which can be called affect verbs. Formally they are similar to other intransitive verbs, but have a distinctive derivation (2.4 #33, #80) and are also distinctive syntactically (2.6.5.2) and semantically. They generally describe the manner in which an action is performed, and therefore combine verbal and adverbial functions. Examples:

leqeqe:n 'walk stooped over'

wit'it'i:n 'go running'

lach'ach'a:n 'go on all fours'

The forms of one intransitive verb xi7- 'go' cannot be predicted. In the non-potential they are:

ma chi:n.x.a	'I went'
ma t.xi7	'he/she went'
ma qo7x	'we went'
ma che7x	'they went'

In the potential they are:

chin.x.e:l.a	'I will go'
k.x.e:l.	'he/she will go'

etc.

2.2.2 NOUNS

Most nouns can be possessed by Set A person prefixes and person enclitics. They serve as the head of a noun phrase and can be modified by adjectives.

Example of a possessed noun:

ja:	'house'
n.ja:.ya	'my house'
t.ja:.ya	'your house'
t.ja:	'his/her/its house'
q.ja:.ya	'our house (not yours)'
q̇.ja:	'our house (everyone)'
ky.ja:.ya	'you-all's house'
ky.ja:	'their house'

Example of a modified noun:

mati:j ja:	'big house'
jun ja: mati:j	'a big house'

There are a large number of common nouns which meet these criteria. In addition there are a number of subclasses of nouns.

2.2.2.1 RELATIONAL NOUNS

There is a small set of relational nouns which indicate grammatical relationships between other nouns in the sentence. The grammatical relationships are generally those of case or location. Many of the relational nouns are related to common nouns, usually

body parts. Relationals are always possessed unless preceded by the interrogative particle al 'who?'. The relationals (given in 3sg form) and the common nouns to which they are related are:

	Relational Noun		Common Noun	
Location:	t.witz	'on'	witz.b'aj	'face'
	t-xe:l	'instead of'	xe:l.b'aj	'replacement'
	t-xo:l	'between'	xo:l.b'aj	'interval'
	t.txlaj	'beside'		
	t.i:b'(aj)	'over'		
	t.jaq'	'below'	jaq'.b'aj	'cushion'
	t-xe	'under'	t-xe:7	'its root'
	t.uj	'in'		
	t.wi7	'above'	wi7.b'aj	'head'
	t.txa7n	'at the edge'	txa7m.b'aj	'nose'
	t.b'utx'	'at the corner'		
	t.tzi:7	'at the entrance'	tzi:.b'aj	'mouth'
	t.i7j.la	'around'		
Case:	t.i7j	'about, by' (topic)		
	t.u:k.(al)	'with' (associative)	t.u:k'al	'his companion'
	t.u7n	'by, because of, with' (agent, causative, instrument)		
	t.e:	'to, of, at, for' (dative, possessive, benefactive, patient)		
	t.i:b'(aj)	'reflexive'		

Examples:

Location:

At jun el jun wo:7 at ta:l tuj jun a7.

'Once upon a time there was a toad that had its offspring in the water.'

at jun el jun wo:7 at ta:l
there is one time one toad there is its offspring

tuj jun a7
in one water

Jawle:t jun xaq kye:7yax tjaq' yo:xh tx'otx' tkub'.

'A precious stone appeared below the red earth.'

jawle:t jun xaq kye:7yax tjaq' yo:xh
it appeared one stone precious below red

tx'otx' tkub'
earth it went down

Ma:xtzan ktza:jal asta ma:x twi7 witz.

'Well, it has to come from there above the hill.'

ma:xtzan ktza:jal asta ma:x
well up to there it will come up to to there

twi7 witz
above it hill

Case:

Topic:

Ju:n txile:n ti7j axi7n ojtxa.

'An explanation about corn in the old days.'

ju:n txile:n ti7j axi7n ojtxa
one its explanation about corn before

Associative:

Nqo:kka te:na yo:lal tu:k' mati: Li:xh Pe:ls,

'And we started to talk with Andrés Pérez,'

nq:okka te:na yo:lal tu:k' mati:
we entered it is to talk with important

Li:xh Pe:ls
Andrés Pérez

Agent:

Ax leq'ch ma tza:j a7 kyu7na.

'Also you-all brought the water from far away.'

ax leq'ch ma tza:j a7 kyu7na
also from far away it came water by you-all

Causative:

Tokb'aj tzi:7 ch'el tu7n nima:l xaq.

'The beak of the parrot was finished because of the rock.'

tokb'aj tzi:7 ch'el tu7n
it was finished beak parrot because of

nima:l xaq
big rock

Instrumental:

Ma aq'na:n Kye:l tu7n asdo:n.

'Miguel worked with a hoe.'

ma aq'na:n Kye:l tu7n asdo:n
he worked Miguel with hoe

Dative:

B'isan kye:tzanma ma txi7 qq'o7na kyaqi:lkax o:nb'il.

'Soon we gave them all the help.'

b'isan kye:tzanma ma txi7 qq'o7na kyaqi:lkax
soon well them man we gave it away all

o:nb'il
help

Possessive:

Per ente:r jun we:ky' ktzajal kyq'o7na.

'But you're going to give me mine whole.'

per ente:r jun we:ky' ktzajal kyq'o7na
but whole one mine you-all will give here

Benefactive:

Ma chitzye:t che:j te: kyajwi:l.

'The horses were rounded up for their owner.'

ma chitzye:t che:j te: kyajwi:l
they were rounded up horse for their owner

Patient:

Tne:jal ul a:j qo7ya awtorisa:7ral te: komite:.

'First we came to authorize (it) the committee.'

tne:jal ul a:j qo7ya awtorisa:7ral te: komite:
first came us to authorize it committee

Reflexive:

Nb'ajtzan qma7na qilqi:b'xa.

'And we were talking among ourselves.'

nb'ajtzan qma7na qilqi:b'xa
we were finishing talking among ourselves

2.2.2.2 MEASURE WORDS

Measure words are a class of nouns which are never possessed and which describe specific measures of

quantity. In a phrase they are preceded by a number or the interrogative particle jte7 'how many?', and are usually followed by a noun referring to the substance to be measured. Many are also common nouns; others are only used as measures. There is a fairly large number of measure words in the language, and they have a high degree of specificity.

Examples:	Measure Word		Common Noun	
	ba:s	'glassful (Sp)'	ba:s	'glass'
	ma7l	'shot of liquor'		
	laq	'plateful'	laq	'plate'
	pixh	'piece'		
	txut	'drop'	txut	'drop'

2.2.2.3 NAMES

Given names and surnames are only rarely possessed, and are usually borrowed from Spanish. A very few Mam names remain in use.

Examples:	Given Names		Surnames	
	Li:xh	'Andrés'	Pe:ls	'Pérez'
	Lo:xh	'Alonso'	Tmi:nk	'Domingo'
	Chep	'José'	To:ntz	'Ordóñez'
	Wa:na	'Juana'	Tis	'Ortiz'
	Mal	'María'	Mna:l	'Maldonado'
	Xwa:n	'Juan'	Mi:ntz	'Méndez'
	Li:na	'Catarina'		
	Wi:t	'Natividad'		

2.2.2.4 TOPONYMS

Toponyms name places. Many of them are descriptive compounds, and often the components cannot be synchronically recovered. Relational nouns for location figure greatly in the compounds.

Examples:

Chna7jal	'Huehuetenango'
I7tzal	'Ixtahuacán'
Tuj Ch'yaq	'Tuchiac'
Jlajxa	'Mexico'
Meq'maja7	'Quezaltenango'

2.2.2.5 PRONOUNS

Pronouns maintain the same distinctions as do nouns, but use person markers that are more like Set B than Set A. There are essentially two different sets of pronouns: one which functions as independent, demonstrative, copulative, identificational, and equative pronouns; and one which is locative or existential.

The sets are:

	Independent	Locative
	'this is X'	'X is (in a place)'
1sg	(a:) q.i:n.a	(a)t.i:n.a
2sg	a:.ya	(a)t.(a7.y)a
3sg	a:	(a)t.(a7)

1pl excl	(a:) qo7.ya	(a)t.o7.ya
1pl incl	(a:) qo7	(a)t.o7
2pl	a:.qa.ya	(a)t.e7.ya
3pl	a:.qa	(a)t.e7

To make an equative pronoun a noun is substituted for the demonstrative a: of the independent pronoun.

Example with a noun base:

	'X is a person'
1sg	xja:l.q.i:n.a
2sg	xja:l.a
3sg	xja:l
1pl excl	xja:l qo7.ya
1pl incl	xja:l qo7
2pl	xja:l.qa.ya
3pl	xja:l.qa

Example with an adjective base:

	'X is tired'
1sg	sikynaj q.i:n.a
2sg	sikynaj.a
3sg	sikynaj
1pl excl	sikynaj.qo7.ya
1pl incl	sikynaj qo7
2pl	sikynaj.qa.ya
3pl	sikynaj.qa

The demonstrative base is optional is the rest of the pronoun is phonologically independent; that is, the first person forms.

Note the optional /a/ which can begin the locative forms. This frequently is used in the second and third person singular forms, in which case the /a7/ element is usually dropped. Consequently there are two common forms for second and third person singular of the locative pronouns:

2sg ata ∿ ta7ya

3sg at ∿ ta7

Analysis shows that all the pronouns use the usual set of enclitics to mark second person. The independent pronouns include elements which mark +1sg and +1pl, but have nothing for -1sg and -1pl. The distinction between singular and plural for non-first person is indicated by the plural enclitic qa. The locative pronouns have a locative element {t-} and then add the first and non-first markers and the enclitics. The person markers in both sets are probably related to Set B prefixes.

Demonstrative	Locative	Set B
q.i:n-	-i:n-	chin-
ø	ø ∿ -a7-	ø
qo7	-o7-	qo-
ø	-e7-	chi-

Examples of pronouns in sentences:

...b'ix aya kye:qaj te7 ti7j Ra:nch.

'...and those who are in Turrancho.'

b'ix aya kye:qaj te7 ti7j Ra:nch
and those of them they are Turrancho

Ta7 ma:x ja:.

'He is in the house.'

ta7 ma:x ja:
he is up to house

Noqtzan pwaq at.

'Well, only the money is there.'

noqtzan pwaq at
well only money there is

Sikynaj qi:na.

'I'm tired.'

sikynaj qi:na
tired I

Tne:jal ul a:j qo7ya awtorisa:7ral te: komite:.

'First we came to authorize the comittee.'

tne:jal ul a:j qo7ya awtorisa:7ral te: komite:
first came us to authorize it committee

2.2.3 ADJECTIVES

Adjectives modify nouns and are not inflected in any way. An adjective normally precedes the noun it modifies. Variations in this structure are discussed in section 2.5, Phrase Formation.

Examples:

Cha7x ki:n tib'la:l twe:x po:xh.

'The color of the pants of the scarecrow is blue.'

cha7x ki:n tib'la:l twe:x po:xh
blue it looks its color his pants scarecrow

Ba:ysan we:ky' chitzanta kyaq q'ankyo:q.

'"I can," said the red lightning.'

ba:ysan we:ky' chitzanta kyaq q'ankyo:q
well good of me it said red lightning

There are two subclasses of adjectives: demonstratives and numbers.

2.2.3.1 DEMONSTRATIVES

Demonstratives precede nouns and require other adjectives to follow nouns. They are:

aj	'this, that'
ajaj	'this, that'
a:	'this, that'
b'ixh	'that (referring to females)'
naq	'that'

2.2.3.2 NUMBERS

Numbers precede nouns, never follow them, and require that other adjectives follow nouns. The number one also functions as an indefinite article. The numbers are:

ju:n	1	junla:j	11	wi:nqan ju:n	21
kab'	2	kab'la:j	12	wi:nqan kab'	22
o:x	3	oxla:j	13	etc.	
kya:j	4	kyajla:j	14		
jwe7	5	ola:j	15		

qaq	6	qaqla:j	16
wu:q	7	wuqla:j	17
wajxaq	8	wajxaqla:j	18
b'elaj	9	b'elajla:j	19
la:j	10	wi:nqan	20

winaq la:j	30
kya7wnaq	40
oxk'a:l	60
junmutx'	80

The numbers above twenty are only rarely used in Ixtahuacán, and are not usually known by any but very old speakers. Instead, Spanish numbers are borrowed. It was not possible to elicit more than the numbers given here. While the number system is undoubtedly derived from the old base twenty Mayan system in which each interval over twenty was counted on the way to the next twenty (that is, twenty-one was one on the way to forty), it has changed and disappeared so that the only remnants are the original numbers from one to nineteen and the numbers for twenty, forty, sixty, and eighty. To all intents and purposes the number system is now decimal.

2.2.4 AFFECT WORDS

Affect words describe an action, a movement, the moment of doing something, or a sound or noise. They

always precede the verb. They are not onomatopoeic, or only minimally so, but there are certain phonological conventions which go with certain types of actions. Momentaneous or abrupt actions are described by affect words which usually terminate in a single consonant. Longer actions may reduplicate the entire word, reduplicate part of the word, reduplicate the final consonant, or may lengthen the vowel. Examples are:

Ni7m se:x xja:l tu7n che:j.

'Umph! the horse pushed the man.'

ni7m se:x xja:l tu7n che:j
umph he went out person by horse

Am jaq so:kx tlame:l kamu:n.

'Suddenly, bang! the bathroom door slammed.'

am jaq so:kx tlame:l kamu:n
suddenly bang it went in its door outhouse

jejeje:y 'the sound of laughter' (partial reduplication)
ch'aw ch'aw 'the sound of a hammar on metal' (complete reduplication)
matz matz 'the action of scissors cutting hair' (complete reduplication)
kall 'the movement of a flea walking beneath the body hair' (reduplication of final consonant)
tzi:7r 'the action of shooting' (lengthened vowel)

2.2.5 PARTICLES

There are a very large number of particles with various functions, including interrogatives, negatives, affirmatives, conjunctions, locatives, temporals, manner

particles, exclamations, vocatives, adverbials, and others. Particles by definition are never inflected or derived, but they may be compounded and add enclitics. Lists of the various particles follow--they are not exhaustive. Note that many of the particles are Spanish loans, primarily among the affirmatives, conjunctions, other adverbials, and others.

2.2.5.1 INTERROGATIVES

Interrogatives usually function as introducers of questions and also as introducers of various clauses which answer the questions.

alkye:	'who?'
al	'who?'
al uj	'in what?'
al u:k'al	'with whom?'
al u7n	'by whom?'
al e:	'of whom?'
al i7j	'for, about whom?'
jtoj	'when?'
jatuma	'where?'
ja:	'where?'
jte7	'how much, many?'
tza7n	'how?'
ti:	'what?'
ti: tqal	'what?'
ti ti:l	'what?'

ti: qu7n	'why?'
jniky'	'what time?'
niky'pu:n	'what size?'
je7ky	'how are you?'
kwa:nto	'when?' (Sp)

2.2.5.2 NEGATIVES

Most negatives are formed from a negative root mi:, but they are not synchronically analyzable.

mi:7n	'no'
nla:y ∿ mila:y	'it's not possible'
miju:n	'no one'
me7a:l	'no one'
tz'i:nan	'no one/nothing is here'
nti7 ∿ miti7	'there isn't'
nya:7 ∿ miya:7	'it isn't'
nja:7	'it isn't'
na7x	'still not'
mi: ∿ mi:x	'no'
mixti7	'there isn't'
ky'e:nan	'no one'
mi:ky'	'it isn't like that'
miwtla	'hope not'
i: ∿ i:chaq	'it doesn't matter'
qami:	'if not'

2.2.5.3 AFFIRMATIVES

ja7ka	'it's possible'
ok	'yes'
ki:	'it's okay'
jo:7	'yes, that's it'
ba:y	'okay' (Sp)
bye:n	'good, okay' (Sp)
we:na	'good, okay' (Sp)

2.2.5.4 CONJUNCTIONS

b'ix	'and'
mo	'or'
i:	'and' (Sp)
pera	'but' (Sp)
ento:ns	'then' (Sp)
pwe:s	'then, well' (Sp)
yajtzan	'and then'
mes	'and (subordinator)'
ax	'also'
sineke	'but rather' (Sp)

2.2.5.5 LOCATIVES

(ma)chi:7w	'there'
tzlu:7	'here'
jlaj	'on the other side'
lu:7	'it's here'
ma:x(a)	'up to, over there'
asta	'up to' (Sp)

2.2.5.6 TEMPORALS

ja7la	'now'
yajxa	'later'
ma:ky'	'just now'
qa:7la	'afternoon'
ma: yi:n	'a little while ago'
nchi7j	'tomorrow'
e:w	'yesterday'
ch'ix	'right now'
ojtxa	'before'
ya:	'now' (Sp)
a:txax	'a long time ago'
b'isan	'soon'
despwe:s	'after' (Sp)
kukx	'still'
k'itxqe:	'a little while ago'
pri:mx	'early' (Sp)
kuxi7	'every little while'
alpi:n	'at last' (Sp)
jomajx	'always'
na:j	'soon'

2.2.5.7 MANNER PARTICLES

kyja7	'like this'
iky	'like this'
jora:t	'quickly'
che:b'a	'slowly'

jonga:na	'strongly' (Sp)
tx'u7jb'an	'at full speed'
jona7wax	'instantly'
junya:7	'quickly'
e7lakyim	'as quickly as possible'
b'a:ka	'little by little'
chi:x	'suddenly'
qit	'at times'
te:mb'ix	'always'
yalnax	'usually, simply'
kaba:l	'completely' (Sp)
ka:si	'almost' (Sp)
b'i7x	'all at once'
lije:r	'rapidly' (Sp)
q'ab'a:l	'by accident'
kix	'like this'
ga:na	'in vain' (Sp)

2.2.5.8 EXCLAMATIONS

a	'don't bother me!'
aju:	'exclamation, fear of cold water'
ak	'exclamation, fear of hot water or fire'
a:y	'oh!'
a7n	'don't bother me!'
a7ny	'what a shame!'
ena:n	'exclamation of fright'
e:q'a	'fat chance! (between men)'

kye7	'fat chance! (between women)'
i7y	'how filthy!'
yi:	'what's happening!'
ye	'how nice'
o:y	'fat chance!'
ja:7	'right!'
kyi:7ra	'ridiculous!'

2.2.5.9 VOCATIVES

o:m	'you (familiar between men)'
q'any	'you (familiar between men)'
q'oy7	'you (familiar between women)'
ya:7	'you (familiar between women)'
o:w	'you (familiar between spouses)'
na:n	'mom, ma'am'
ta:t	'dad, sir'

2.2.5.10 OTHER ADVERBIALS

o7kx	'only'
noq	'only'
so:lo	'only' (Sp)
puro	'very' (Sp)
ma:s	'more' (Sp)
ch'i:n	'a little'
yi:n	'a little'
ni7xa	'a few'
mejo:r	'better' (Sp)
pyo:r	'worse' (Sp)

2.2.5.11 Other Particles

kuna	'goodbye (first speaker)'
ku:	'goodbye (second speaker)'
a:x	'the same'
par	'for' (Sp)
base:r	'it will be' (Sp)
b'a:nchaq	'thanks that'
mas bye:n	'rather' (Sp)
dya:y	'hi, what's up' (Sp)
jodi:da	'what a mess' (Sp)
elj	'in case'
kisan	'right'
maj	'time (vez)'
el	'time (vez)'
b'ala	'maybe'
qapa	'maybe'
je:7kyala	'who knows'
ku:ya	'who knows'
baqa	'hardly'
sabe:r	'who knows' (Sp)
ke:	'that' (Sp)
el(a7)	'when (subordinator)'
qa(ma)	'if'
aj	'when (subordinator)'
kye:7yax	'good, beautiful'
nema:s	'everyone else' (Sp)
porke:	'because' (Sp)

komo	'like' (Sp)
berda:	'right (rhetorical)' (Sp)
i:	'that (subordinator)'
i:l	'necessary'
jlu:7	'this one, that one'

2.2.6 ADVERBS

There are a few derived adverbs in Mam, which because they are derived, are not particles. Their derivation is described in 2.4.5. These words are the heads of adverb phrases, and include directions and time in the future and in the past.

Examples:

jawnax	'up'
ka:7j	'in two days'
jna:b'a	'a year ago'

2.2.7 REVIEW OF INFLECTION

In the charts that follow, certain conventions are used. Double lines indicate juncture or places where elements are separable from the rest of the word. + indicates an obligatory element, while ± indicates an optional element. The horizontal lines show that either the first five aspects or mode is obligatory, but that they do not co-occur. The aspect ok is optional with the potential mode.

2.2.7.1 VERB INFLECTION

Transitive Verb:

aspect	Set B patient	Set A agent	Stem	Mode	Enclitics
ma	chin-	n-∿w-			a ∿ ya
o	ø∿tz-∿ tz'-∿k-	t-			a ∿ ya
n-	qo-	q-			a ∿ ya
x-	chi-	ky-			a ∿ ya
ø					
+					
ok				-a7 (pot)	
±					
				-m (imp)	
	+	+	+	+	+

Intransitive Verb:

Aspect	SetB subject	Stem	Mode	Enclitics
ma	chin-			a ∿ ya
o	ø∿tz-∿ tz'-∿k-			a ∿ ya
n-	qo-			a ∿ ya
x-	chi-			a ∿ ya
ø				
+				
ok			-l (pot)	
±				
			ø (imp)	
	+	+	+	+

2.2.7.2 NOUN INFLECTION

Possessed Noun:

Set A (possessor)	Stem	Enclitics
n-∿w-		a ∿ ya
t-		a ∿ ya
q-		a ∿ ya
ky-		a ∿ ya
+	+	+

2.3 ROOT CLASSES

Roots form the nuclei of words. The classes of roots are defined morphologically by the types of affixes which occur with each class, or by the internal changes which a root class may undergo during word formation. The root classes are verb, positional, noun, adjective, affect, and particle. Most roots belong unequivocally to one class, but a few roots are ambiguous as to class.

2.3.1 VERB ROOTS

2.3.1.1 TRANSITIVE ROOTS

Transitive roots are always bound and can form transitive verbs without derivation. Example:

tzuy- 'grab'

ma Ø.t.tzuy 'he grabbed it'

2.3.1.2 INTRANSITIVE ROOTS

Intransitive roots are always bound and can form intransitive verbs without derivation. Example:

kyim- 'die'

ma Ø.kyim 'he died'

2.3.2 POSITIONAL ROOTS

Positional roots are bound forms which must be derived to form words, always with a change in class. Some of the particular derivational affixes which form words from positional roots are specific to this root class, and most commonly form verbs or adjectives. The adjectives thus formed indicate that something has the position, form, or state described by the root, while the verb indicates that something is becoming like or is placed like that described by the root. Positional roots have a semantic element in common; they generally describe position, form, or state of an object, and imply absence of movement. (For positional specific derivation, see the chart in section 2.46; for more on positionals, see 4.3.) Example:

tutz'- 'seated'

tutz'l 'seated (adjective form)'

2.3.3 NOUN ROOTS

Noun roots usually are free forms which form nouns with no further derivation. There are a number of subclasses of noun roots, defined by changes which the root undergoes in either the possessed or absolute form. (The numbers by which the noun root classes are identified correspond to the numbers used in the Mam dictionary being compiled at the PLFM in Antigua, Guatemala.)

2.3.3.1 S1

These are roots which do not change under possession. The root is a free form. Example:

k'o:j	'mask'
n.k'o:j.a	'my mask'

2.3.3.2 S1a

The root is a free form and the last vowel of the root is lengthened under possession. It should be noted that all noun roots of the shape CV7C fall into this category, but there are many roots without glottal stop which also lengthen the final vowel under possession. Examples:

xaq	'stone'
n.xa:q.a	'my stone'
ne71	'sheep'
n.ne:71.a	'my sheep'

2.3.3.3 S1b

The penultimate vowel of the root is lengthened under possession and the root is a free form. Because unstressed vowels are often dropped or neutralized (see 1.6.1 and 1.6.2), it is usually necessary to have both forms to know the base form of the root. Example:

tz'lom	'plank'
n.tz'a:lma.ya	'my plank'
||tz'alom||	base form

2.3.3.4 S2

The root is a free form and adds a suffix {-V(:)l} for the possessed form. There are only four roots of this class, all of which can also be possessed without adding the suffix, suggesting that the class may be disappearing in this dialect of Mam. Examples:

chiky'	'blood'
n.chiky'.e:l.a	'my blood'
xja:l	'person'
n.xja:l.al.a	'my person'
xi:naq	'man'
n.xinaq:i:l.a	'my man'
xu7j	'woman'
n.xu7j.al.a	'my wife'

2.3.3.5 S3

The root is a bound form. For the absolute form is adds a suffix {-b'aj ~ -j}, and drops that suffix under possession. All the roots of this class are objects which are usually possessed by humans. Most of the roots that take {-b'aj} are body parts and relatives, while most of the roots that take {-j} are articles of clothing. General food terms fall into both categories. Not all body parts, relatives, foods, and clothing are in this class, and the semantic distinction between the two suffixes is not perfect. Examples:

<u>{-b'aj}</u>

qam.b'aj	'foot'
n.qan.a	'my foot'
ya:.b'aj	'grandmother'
n.ya:7.ya	'my grandmother'

<u>{-j}</u>

a:m.j	'skirt'
w.a:m.a	'my skirt'
lo7.j	'fruit (picked)'
n.lo7.ya	'my fruit'

Exceptions to the semantic categories:

<u>{-b'aj}</u>

txo7w.b'aj	'blanket'
xmu:j.b'aj	'shawl'
ky'itz.b'aj	'belt'

{-j}

i:m.j 'breast'

One word, pa:sb'il 'hat', falls into this class although the suffix in the absolute form is not {-b'aj ~ -j}. The suffix is {-b'il}, probably an instrumental (2.4.2), but under possession it is dropped, just like other articles of clothing: n.pa:s.a 'my hat'.

2.3.3.6 NEVER POSSESSED NOUN ROOTS

These roots are free forms which are never possessed, primarily on semantic grounds; that is, the nouns refer to things which are not considered possessable. The class includes measure words, place names, and others, many of which are natural phenomena. Examples:

kya7j 'sky'

laq 'plateful (measure word)'

che7w 'star'

2.3.3.7 ALWAYS POSSESSED NOUN ROOTS

These are bound forms which are always possessed, usually and sometimes exclusively by a third person possessor. Most of these roots refer to parts of objects (non-human, and usually inanimate). Some roots belong to this class when they refer to objects and belong to class S3 when they refer to people. All relational nouns are of this class. Examples:

t.lok' 'its root'

t.b'aq' 'its seed'

2.3.4 ADJECTIVE ROOTS

Adjective roots are free forms which form adjectives without derivation. Example:

yo:xh 'red'

2.3.5 AFFECT ROOTS

These are free forms which form affect words without derivation. Some roots reduplicate entirely or in part to form words. Example:

lem 'the action of closing'

2.3.6 PARTICLE ROOTS

These are free forms and by definition do not add affixes to form words. They may take enclitics, however, and there are also some compound stems. Example:

iky 'like this'

2.3.7 CANONICAL SHAPE OF ROOTS

The most common root shape is CVC, and most roots end in C. Some root classes (verbs, positionals, affect roots) are quite restricted as to shape. In the shapes which follow, the first consonant can be considered optional, giving vowel initial roots of the same shapes, except for positionals, which never begin with a vowel. Note that nC is the only possible cluster in final position.

2.3.7.1 TRANSITIVE ROOT SHAPES

CV	se-	'burn up firewood'
CV7	se7-	'do'
CVC	tzuy-	'grab'
CV7C	ch'i7l-	'singe'

2.3.7.2 INTRANSITIVE ROOT SHAPES

CV7	xi7-	'go'
CV:7	kye:7-	'reach, last'
CVC	b'aj-	'finish'
CV7C	tz'e7y-	'burn'
CV:C	ch'i:y-	'grow'

2.3.7.3 POSITIONAL ROOT SHAPES

CVC	pew-	'discoid'
CVnC	wank-	'in form of a ball'

2.3.7.4 NOUN ROOT SHAPES

CV:	b'a:	'mole'
CV:7	kya:7	'type of caterpillar'
CVC	jos	'egg'
CV7C	ch'i7x	'thorn'
CV:C	b'a:q	'bone'
CV:7C	mu:7n	'seedling'
CVnC	chank	'instrument for rolling thread'
CV:nC	pe:nky'	'type of flower'
CV7V:C	sa7a:n	'part of a loom'
CV:CV	q'e:b'a	'type of tree'

CVCVC	chinab'	'marimba'
CVCV:C	ky'ija:j	'twine'
CV7CVC	wi7tan	'cypress'
CV:CVC	si:k'al	'oak'
CCVC	b'laq	'corn cob'
CCV:C	jb'a:l	'rain'

2.3.7.5 ADJECTIVE ROOT SHAPES

CV7	chi7	'sweet'
CV:	k'a:	'bitter'
CV:7	ne:7	'small'
CVC	ch'ul	'squishy'
CV7C	b'a7n	'good'
CV:C	ju:ch'	'narrow'
CVnC	b'onk	'fat'
CV7nC	ri7nk	'like tiny birds without feathers'
CVCV:7	neqa:7	'near'
CV:CV	me:b'a	'poor'
CVCVC	pak'at	'subsoil-like'
CVCV:C	mati:j	'big'
CCVC	jyom	'hollow stick'
CCV7C	tx'le7j	'hairless'

2.3.7.6 AFFECT ROOT SHAPES

CVC	quy	'movement of a worm'
CV7C	txa7q'	'crunch (sound)'
CV:	pi:	'a call for turkeys'
CV:7	ke:7	'song of chickens'

CV:C	ku:w	'song of doves'
CV:7C	tzi:7r	'action of shooting'

2.3.7.7 PARTICLE ROOT SHAPES

CV	qa	'if'
CV7	kye7	'fat chance!'
CV:	ti:	'what?'
CV:7	jo:7	'okay'
CVC	ch'ix	'now'
CV7C	tza7n	'how?'
CV:C	na:j	'soon'
CV:7C	mi:7n	'no'
CVCV	baqa	'hardly'
CV:CV	ma:xa	'up to'
CV7CV	ja7la	'now'
CVnC	q'any	'you (familiar between men)'
CVCVC	b'isan	'soon'
CVCV:C	jora:t	'quickly'
CCV7	kyja7	'like this'

2.4 STEM FORMATION

The topic discussed in this section is the formation of stems through derivation. There is a large class of derivational affixes which form new stems from roots and stems by changing the stem class or the lexical meaning of the root or stem to which they are added, or both. The section is arranged according to the class

of the derived stem; a chart at the end also shows which roots and stems can take which affixes. Information about each affix is arranged according to the following format:

1. number, morpheme, gloss
2. allomorphs and distribution
3. function
4. productivity
5. examples
6. other remarks

1) 1. {S-}

2. s- ∿ xh- ∿ x- ∿ ch- (lexically determined)

3. Derives noun, transitive, adjective, affect stems from noun, transitive, adjective, and affect roots or stems, usually with no change in class. The change in meaning is usually very slight, and seems to be mostly a change in specificity of reference. These prefixes provide a way to derive new vocabulary as needed.

4. Productive

5. Examples:

q'an 'ripe' (A) → xhq'an 'yellow' (a)†

† The following abbreviations are used: T = transitive root, I = intransitive root, P = positional root, N = noun root, A = adjective root, AF = affect root, t = transitive stem, i = intransitive stem, n = noun stem, a = adjective stem, af = affect stem.

k'a: 'bitter' (A) → xk'a: 'bile (n)

juk 'short and fat' (A) → chjuk 'fat, potbellied' (a)

toq' 'frog' (N) → xtoq' 'frog' (n)

wit'- 'jump' (T) → xwit'- 'jump' (t)

che7w 'cold' (A) → sche7w 'shivering' (a)

2) 1. Reduplication

2.

3. There are various forms of reduplication which create stems of several classes and for which there are not enough examples to generalize.

4. Nonproductive

5. Examples:

k'uxk'ub' 'a type of high grass' (n)

saqtz'utz'ub' 'partly dry' (a)

xko7j 'brown' (A) → xkojkojte:7 'spiny plant, yellow in color' (n)

pixhixhi:7 'a water bird' (n)

jet- 'uneven' (P) → jetetje:7 'uneven'

waqlaq 'a type of bird' (n)

2.4.1 VERB FORMATION

3) 1. {-V:} 'stem formative'

2. Ø after stems or roots which end in a long vowel or vowel glottal stop (CV:, CV:7, CVCCV:); vowel length after roots which end in a short

vowel (CV);

-a after stems or roots which end in a consonant and have a long vowel or vowel glottal stop (CV:C, CV7C, CVCV7C);

-a: ~ -u: ~ -o: after stems or roots which end in a consonant and have a short vowel (CVC, CVCC). The vowel chosen is lexically determined.

3. a. The stem formative is obligatory in the formation of certain verb words:

   1) It occurs before the verbal noun suffix {-l} and the agentive suffix {-l} (both transitive and intransitive stems and roots).

   2) It occurs before the intransitivizing suffix {-n}, the participle suffix {-7n}, the processive suffixes {-7kj}, {-7tz}, and the passive suffix {-njtz}.

   3) It occurs optionally for transitive roots in the non-potential if the root shape is CVC, and obligatorily for other shapes.

   4) It occurs before the transitive imperative {-m}.

   b. The stem formative derives transitive stems from noun, positional, and affect roots.

4. Productive

5. Examples:

Root or Stem	Verbal Noun
na- 'think' (T)	→ na:l 'to think'
tzoqpi:- 'set free' (t)	→ tzoqpi:l 'to set free'
b'i:tz 'song' (N)	→ b'i:tzal 'to sing'
si7w- 'gather firewood' (t)	→ si7wal 'to gather firewood'
naj- 'occupy a house' (T)	→ naja:l 'to occupy a house'
b'iy- 'kill' (T)	→ b'iyo:l 'to kill'
chuk- 'dissolve' (T)	→ chuku:l 'to dissolve'
b'e:t- 'walk' (I)	→ b'e:tal 'to walk'

6. Some CVC roots go to CV:C in the nonpotential and change the stem formative so as to be consistent with shape. A few CVC roots pattern throughout like CV:C stems. Example:

   tzoj- 'cough' → tzojal 'to cough' (not tzoja:l)

2.4.1.1 TRANSITIVE STEM FORMATION

4) 1. {-b'a:} 'transitivizer'

2. -b'a:

3. Derives transitive stems from positional roots, with the meaning 'put or leave in such a way'.

4. Productive

5. Examples:

mutz- 'upside down' (P)	→ mutzb'a:- 'put upside down' (t)
tzal- 'to one side' (P)	→ txalb'a:- 'put to one side' (t)

wank- 'in form of ball' (P) →

wankb'a:- 'put in form of ball' (t)

5) 1. Lengthened vowel 'transitivizer'

2. Lengthened vowel

3. Derives transitive stems from positional and affect roots, with the meaning 'do it in such a way'.

4. Productive

5. Examples:

mok'- 'crouched' (P) → mo:k'- 'crouch' (t)

b'otz- 'wrapped up' (P) → b'o:tz- 'wrap up' (t)

qin- 'stretched' (P) → qi:n- 'stretch' (t)

lach' 'a big step' (AF) → la:ch'- 'walk with big steps' (t)

pis 'action, break something thin and dry' (AF) →

pi:s- 'break something thin and dry' (t)

qech 'noise of grinding' (AF) → qe:ch- 'grind' (t)

6) 1. {-la:} 'applicative'

2. -la after V7;

-la: elsewhere.

3. Derives transitive stems from noun roots and stems.

4. Nonproductive

5. Examples:

a7 'water' (N) → a7la- 'water' (t)

a:m- 'skirt' (N) → amla:- 'use a skirt' (t)

pa:sb'il 'hat' (n) → pasb'la:- 'use a hat' (t)

ma:kb'il 'tool' (n) → makb'la:- 'use tools' (t)

u:w- 'necklace' (N) → uwla:- 'use a necklace' (t)

6. Requires shortening of the preceding vowel.

7) 1. {-wa} 'applicative'

2. -wa

3. Derives transitive stems from noun roots.

4. Nonproductive

5. Example:

si7 'firewood' (N) → si7wa- 'gather firewood' (t)

8) 1. {-ya} 'applicative'

2. -ya

3. Derives transitive stems from noun roots.

4. Nonproductive

5. Examples:

b'e: 'road' (N) → b'e:ya- 'fix roads' (t)

ja: 'house' (N) → ja:ya- 'roof a house' (t)

9) 1. {-yi:} 'applicative'

2. -yi:

3. Derives transitive stems from noun roots.

4. Nonproductive

5. Example:

me:b'a 'orphan' (N) → meb'ayi:- 'care for orphans' (t)

10) 1. {-b'e:} 'causative'

2. -b'e:

3. Derives transitive stems from transitive, intransitive, and unidentified roots.

4. Nonproductive

5. Examples:

aj- 'want' (T) → ajb'e:- 'want' (t)

oq- 'flee' (I) → oqb'e:- 'abandon' (t)

*sas- → sasb'e:- 'feel pulse, touch, weigh in hands' (t)

*xal- → xalb'e:- 'step over' (t)

*xjuk'- → xjuk'b'e:- 'guide, teach how to work' (t)

11) 1. {-cha:} 'causative'

2. -cha:

3. Derives transitive stems from positional, affect, and unidentified roots.

4. Nonproductive

5. Examples:

b'ow- 'swollen part' (P) → b'owcha:- 'cause to fall' (t)

k'ow- 'sound of knocking (AF) →

k'owcha:- 'knock on door' (t)

*xmuk- → xmukcha:- 'joke' (t)

12) 1. {-chi:} 'causative'

2. -chi:

3. Derives transitive stems from unidentified roots.

4. Nonproductive

5. Example:

*ch'up- → ch'upchi:- 'wash the head' (t)

13) 1. {-chu:} 'causative'

2. -chu:

3. Derives transitive stems from positional, affect, and unidentified roots.

4. Nonproductive

5. Examples:

b'iq'- 'grain thrown down' (P) →

b'iq'chu:- 'swallow something whole' (t)

*k'ap- → k'apchu:- 'split firewood' (t)

q'am ' sound of breaking cane' (AF) →

q'amchu:- 'break branches' (t)

t'ab' 'action of snapping at something' (AF) →

t'ab'chu:- 'snap at something in the air' (t)

14) 1. {-k'u:} 'causative'

2. -k'u:

3. Derives transitive stems from affect and unidentified roots.

4. Nonproductive

5. Examples:

jas 'speech in a soft voice' (AF) →

jask'u:- 'say softly' (t)

*taq- → taqk'u:- 'cut wood' (t)

15) 1. {-le:} 'causative'

2. -le:

3. Derives transitive stems from intransitive and unidentified roots.
4. Nonproductive
5. Examples:

iky'- 'pass' (I) → iky'le:- 'insult' (t)

*itz'- → itz'le:- 'stay up late' (t)

16) 1. {-li:} 'causative'
2. -li:
3. Derives transitive stems from unidentified roots.
4. Nonproductive
5. Examples:

*echaq- → echaqli:- 'check' (t)

*xpap- → xpapli:- 'criticize, blaspheme' (t)

17) 1. {-lu:} 'causative'
2. -lu:
3. Derives transitive stems from unidentified roots.
4. Nonproductive
5. Example:

*xmej- → xmejlu:- 'plead' (t)

18) 1. {-mu:} 'causative'
2. -mu:
3. Derives transitive stems from unidentified roots.
4. Nonproductive
5. Example:

*taq- → taqmu:- 'cut sticks into many equal pieces' (t)

19) 1. {-na:} 'causative'

2. -na:

3. Derives transitive stems from unidentified roots.

4. Nonproductive

5. Examples:

*tz'iy- → tz'iyna:- 'line up' (t)

*maj- → majna- 'lend' (t)

20) 1. {-ne:} 'causative'

2. -ne:

3. Derives transitive stems from unidentified roots.

4. Nonproductive

5. Example:

*q'ax- → q'axne:- 'warm oneself by the fire' (t)

21) 1. {-pi:} 'causative'

2. -pi:

3. Derives transitive stems from positional, transitive, affect, and unidentified roots.

4. Nonproductive

5. Examples:

tunk- 'tree without point' (P) → tunkpi:- 'fell' (t)

wiq'- 'in form of ball' (P) → wiq'pi:- 'take a root, rock out of the dirt' (t)

tuch'- 'work land badly' (T) → tuch'pi:- 'work land badly' (t)

*tzaq- → tzaqpi:- 'jump' (t)

yutz 'fright' (AF) → yutzpi:- 'frighten' (t)

22) 1. {-pu:} 'causative'

2. -pu:

3. Derives transitive stems from positional, transitive, affect, and unidentified roots.

4. Nonproductive

5. Examples:

jil- 'hidden under the brush' (P) →

jilpu:- 'cause to slip; put in, e.g. machete in sheath' (t)

qitz'- 'tight' (P) → qitz'pu:- to tie' (t)

*seky'- → seky'pu:- 'frighten' (t)

chak'- 'someone asleep in front of house' (P) →

chak'pu:- 'make someone fall' (t)

jas 'action of cutting in one blow' (AF) →

jaspu:- 'cut with one blow' (t)

jiq- 'pull up just germinating plants' (T) →

jiqpu:- 'pull up plants with entire root' (t)

23) 1. {-q'i:} 'causative'

2. -q'i:

3. Derives transitive stems from unidentified roots.

4. Nonproductive

5. Example:

*mul- → mulq'i:- 'sink' (t)

24) 1. {-q'u:} 'causative'

2. -q'u:

3. Derives transitive stems from positional, affect,

and unidentified roots.

4. Nonproductive

5. Examples:

pich'- 'head down' (P) → pich'q'u:- 'let fall head down' (t)

tzib' 'moment of spilling' (AF) →

tzib'q'u:- 'spill' (t)

pat- 'thrown down' (P) → patq'u:- 'turn (something flat, or earth)(t)

*b'al- → b'alq'u:- 'roll down' (t)

*b'il- → b'ilq'u:- 'swallow' (t)

25) 1. {-sa:} 'causative'

2. -sa: after stems with short vowels;

-sa elsewhere.

3. Derives transitive stems from adjective and intransitive roots and stems.

4. Semiproductive

5. Examples:

nim 'a lot' (A) → nimsa:- 'make big' (t)

no:j- 'fill' (I) → nojsa:- 'fill it' (t)

tx'e7l 'toasted' (A) → tx'e7lsa- 'toast it' (t)

26) 1. {-tzi:} 'causative'

2. -tzi:

3. Derives transitive stems from unidentified roots.

4. Nonproductive

5. Examples:

*ab'- → ab'tzi:- 'order ahead' (t)

*b'al- → b'altzi:- 'roll up (e.g. string)' (t)

27) 1. {-tz'u:} 'causative'

2. -tz'u:

3. Derives transitive stems from affect, transitive, and unidentified roots.

4. Nonproductive

5. Examples:

jap 'action of shutting something rapidly' (AF) → japtz'u:- 'shut door, chest' (t)

*mel- → meltz'u:- 'turn over; close eyes; exchange' (t)

paq- 'baste, hem' (T) → paqtz'u:- 'fold (e.g. cloth)' (t)

qo7p 'action of lighting a fire or the reflection of light' (AF) → qoptz'u:- 'light instantly, illuminate' (t)

tam 'action of cutting' (AF) → tamtz'u:- 'cut something solid' (t)

28) 1. {-we:} 'causative'

2. -we:

3. Derives transitive stems from unidentified roots.

4. Nonproductive

5. Example:

*tzaq'- → tzaq'we:- 'answer' (t)

29) 1. {-naje:7} 'repetitive'

2. -naje:7

3. Derives transitive stems from transitive stems and roots, and positional roots.

4. Nonproductive

5. Examples:

   qej- 'lie down' (P) → qejnaje:7- 'lie down every little while' (t)

   qe:l- 'run' (t) → qelnaje:7- 'run every little while' (t)

6. Requires dropping of preceding long vowels.

30) 1. {-7kj} 'processive'

2. -kj after a short stem formative;
   -7...kj after a short stem formative preceded by a resonant, in which case the glottal stop precedes the resonant;
   -7kj elsewhere, with shortening of the stem formative.

3. Derives transitive stems from transitive and intransitive stems, adding the meaning 'go and do it'.

4. Productive

5. Examples:

   b'i:tza- 'sing' (t) → b'i:tzakj- 'go and sing' (t)

   ma- 'say' (T) → ma7kj- 'go and say' (t)

   b'e:ta- 'walk' (i) → b'e:takj- 'go and walk' (t)

6. Requires the stem formative.

31) 1. {-7tz} 'processive imperative'

2. -tz after short stem formatives;

-7...tz after short stem formatives preceded by a resonant, in which case the glottal stop precedes the resonant;

-tz, elsewhere, with shortening of the stem formative.

3. Derives transitive stems from transitive and intransitive stems, adding the meaning 'go and do it!'.

4. Productive

5. Examples:

ila- 'see' (t) → la7tz- 'go and see!' (t)

qe:la- 'run' (t) → qe:7latz- 'go and run!' (t)

tze:q'a- 'hit' (t) → tze:q'atz- 'go and hit!' (t)

6. Requires the stem formative.

2.4.1.2 INTRANSITIVE STEM FORMATION

32) 1. {-n} 'intransitivizer'

2. -n

3. Derives intransitive verbs from transitive stems.

4. Productive

5. Examples:

aq'na:- 'work' (t) → aq'na:n- 'work' (i)

ki:- 'look at' (t) → ki:n- 'look' (i)

wa:7- 'eat (tortilla)' (t) → wa:7n- 'eat (tortilla)' (i)

6. Requires the stem formative.

33) 1. {-:n} 'affect'

2. -:n

3. Derives affect verbs from affect stems (see 2.4.4).

4. Productive

5. Examples:

wit'- 'standing' (P) → wit'it'i 'action of going running' (af) → wit'it'i:n- 'go running' (i)

pal- 'lying down' (P) → palala 'action of floating' (af) → palala:n- 'go floating' (i)

34) 1. {-ax} 'vertitive'

2. -i:x after roots or stems of two syllables; -ax elsewhere.

There are some exceptions, and all adjectives formed by the suffix $\{-V_1C_2V_1:n\}$ (72) take -ax.

3. Derives intransitive stems from adjective roots or stems.

4. Productive

5. Examples:

saq 'white' (A) → saqax- 'become white' (i)

xq'i:lan 'green' (a) → xq'ilăni:x- 'become green' (i)

ni:w 'dirty' (A) → ni:wax- 'become dirty' (i)

6. -i:x requires shortening of long vowels in the stem.

35) 1. {-e:7} 'vertitive'

2. -e:b' before vowel initial suffixes (not

enclitics);

-e:7 elsewhere

3. Derives intransitive stems from positional roots.

4. Productive

5. Examples:

paq- 'lying down' (P) → paqe:7- 'lie down' (i)

tutz'- 'sitting' (P) → tutz'e:7- 'sit down' (i)

txal- 'put to one side' (P) → tzale:7 'go or put to one side' (i)

36) 1. {-b'aj} 'passive'

2. -b'aj

3. Derives intransitive stems from transitive roots and stems and unidentified roots.

4. Productive

5. Examples:

to:q- 'cut' (t) → to:qb'aj- 'be cut' (i)

il- 'see' (t) → ilb'aj- ∿ lab'aj- 'be seen' (i)

*putz- → putzb'aj- 'be better'

6. These forms require a directional and do not permit an agent in the sentence.

37) 1. {-e:t} 'passive'

2. -at after CV:C;

-t after some CV:, CV:7 stems;

-e:t elsewhere.

3. Derives intransitive stems from transitive stems and roots.

4. Productive

5. Examples:

aq'n- 'work' (t) → aq'ne:t- 'be worked' (i)

b'i:tz- 'sing' (t) → b'i:tzat- 'be sung' (i)

lo:- 'eat fruit' (t) → lo:t- 'be eaten' (i)

6. There is never an agent in the sentence. -e:t requires dropping of any preceding vowel.

38) 1. {-j} 'passive'

2. -l after CVC;

-j after CV:C.

3. Derives intransitive stems from transitive roots and stems, adjective roots, and unidentified roots.

4. Productive

5. Examples:

ti:l- 'water' (t) → ti:lj- 'be watered' (i)

yu:p- 'put out fire' (t) → yu:pj- 'be put out' (i)

*me:l- → me:lj- 'be without comfort' (i)

*q'oj- → q'ojl- 'be angry' (i)

*qoj- → qojl- 'be overfull' (i)

39) 1. {-njtz} 'passive'

2. -njtz

3. Derives intransitive stems from transitive stems.

4. Semiproductive

5. Examples:

tze:q'a- 'hit' (t) → tze:q'anjtz- 'be hit' (i)

o:na- 'help' (t) → o:nanjtz- 'be helped' (i)

b'iyo:- 'kill' (t) → b'iyo:njtz- 'be killed' (i)

6. Some people in the town use these forms and some do not. There can be a third person agent in the sentence. The stem formative is required.

40) 1. {-b'a} 'intransitivizer'

2. -b'a

3. Derives intransitive stems from adjective and unidentified roots.

4. Nonproductive

5. Examples:

*ky'ix- → ky'ixb'a- 'be wounded' (i)

kyaq 'red' (A) → kyaqb'a- 'be angry' (i)

41) 1. {-ch} 'intransitivizer'

2. -ch

3. Derives intransitive stems from transitive stems.

4. Nonproductive

5. Example:

yu:k- 'move it' (t) → yukch- 'move' (i)

6. Requires shortening of a preceding long vowel.

42) 1. {-chaj} 'intransitivizer'

2. -chaj

3. Derives intransitive stems from positional and unidentified roots.

4. Nonproductive

5. Examples:

b'ow- 'swollen place' (P) → b'owchaj- 'fall' (i)

*q'ip- → q'ipchaj- 'slip (the hand)' (i)

43) 1. {-paj} 'intransitivizer'

2. -paj

3. Derives intransitive stems from positional and unidentified roots.

4. Nonproductive

5. Examples:

wit'- 'standing' (P) → wit'paj- 'jump' (i)

*tzoq- → tzoqpaj- 'escape' (i)

lit'- 'stretched' (P) → lit'paj- 'stretch' (i)

*seky'- → seky'paj- 'be frightened' (i)

*loq- → loqpaj- 'wilt' (i)

qin- 'stretched' (P) → qinpaj- 'stretch' (i)

44) 1. {-t} 'intransitivizer'

2. -t

3. Derives intransitive stems from adjective roots and unidentified roots.

4. Nonproductive

5. Examples:

*meq'- → meq't- 'be hot' (i)

*lab'- → lab't- 'bother' (i)

*q'aj- → q'ajt- 'call, say' (i)

*siky- → sikyt- 'be tired' (i)

*tx'uj- → tx'ujt- 'flee' (i)

b'a7n 'good' (A) → b'ant- 'be well; learn' (i)

45) 1. {-tz'aj} 'intransitivizer'

2. -tz'aj

3. Derives intransitive stems from positional roots.

4. Nonproductive

5. Example:

jom- 'empty stomach' (P) → jomtz'aj- 'be empty' (i)

46) 1. {-tz'aq} 'intransitivizer'

2. -tz'aq

3. Derives intransitive stems from unidentified roots.

4. Nonproductive

5. Example:

*kutz- → kutztz'aq- 'fall' (i)

47) 1. {-7...al} 'specific termination'

2. -7...al

3. Derives intransitive stems from intransitive roots of motion, adding specificity of end point of action.

4. Nonproductive

5. Examples:

e:l- 'go out' (I) → e:7lal- 'go out to a specific point' (i)

a:j- 'return' (I) → a:7jal- 'return from a specific point' (i)

ja:w- 'go up' (I) → ja:7wal- 'go up to a specific point' (i)

o:k- 'go in' (I) → o:7kal- 'go in to a specific point' (i)

kub'- 'go down' (I) → kub'al- 'go down to a specific point' (i)

2.4.2 NOUN STEM FORMATION

48) 1. {aj-} 'agent'

2. aj-

3. Derives noun stems from noun roots.

4. Productive

5. Examples:

q'i:j 'day' (N) → ajq'i:j 'diviner' (n)

me:s 'table' (N) → ajme:s 'practitioner' (n)

che:j 'mule, horse' (N) → ajche:j 'mule driver' (n)

mi:s 'mass' (N) → ajmi:s 'Catholic' (n)

po:n 'incense' (N) → ajpo:n 'person of traditional beliefs' (n)

b'i:tz 'song' (N) → ajb'i:tz 'singer' (n)

49) 1. {aj-} 'native'

2. aj-

3. Derives noun stems from toponyms.

4. Semiproductive

5. Examples:

Xhni:l 'Colotenango' → ajxhni:l 'person from Colotenango' (n)

Pe:tz'al 'San Rafael Petzal' → ajpe:tz'al 'person from San Rafael' (n)

Chna7jal 'Huehuetenango' → ajchna7jal 'person from Huehuetenango' (n)

Kwi:lb' 'Cuilco' → ajkwi:lb' 'person from Cuilco' (n)

50) 1. {-l} 'agentive'

2. Lengthens the ultimate vowel of a root which ends in a short vowel (not the stem formative); -l elsewhere.

3. Derives noun stems from transitive and some intransitive stems.

4. Productive

5. Examples:

yo:la- 'speak' (t) → yo:lal 'speaker' (n)

aq'na:- 'work' (t) → aq'na:l 'worker' (n)

wa:7- 'eat' (t) → wa:7l 'someone who eats tortillas' (n)

b'e:ta- 'walk' (i) → b'e:tal 'walker' (n)

6. Requires the stem formative.

51) 1. {-e:nj} 'patient'

2. -e:nj

3. Derives noun stems from transitive stems and roots.

4. Productive

5. Examples:

b'iy- 'kill' (T) → b'iye:nj 'killed person' (n)

txik- 'cook' (T) → txike:nj 'that which is cooked' (n)

chem- 'weave' (T) → cheme:nj 'that which is woven' (n)

52) 1. {-b'il} 'instrumental'

2. -b'il

3. Derives noun stems from transitive roots or stems, intransitive, positional, and unidentified roots.

4. Productive

5. Examples:

luk- 'pull up' (T) → lukb'il 'instrument for pulling up' (n)

o:q'- 'cry' (I) → o:q'b'il 'something which causes crying' (n)

tutz'- 'sitting' (P) → tutz'b'il 'something for sitting' (n)

po:m- 'perform rites' (t) → po:mb'il 'place for performing rites' (n)

6. Indicates either the instrument for doing the action or the place where the action is performed.

53) 1. {-b'e:n} 'resultant locative'

2. -b'e:n

3. Derives noun stems from transitive roots or stems, and positional roots.

4. Productive

5. Examples:

ju:s- 'burn' (t) → jusb'e:n 'burned place' (n)

aq'n- 'work' (t) → aq'anb'e:n 'worked place' (n)

qej- 'lying down' (P) → qejb'e:n 'place where one has lain down' (n)

54) 1. {-b'an} 'remainder'

2. -b'an

3. Derives noun stems from transitive roots or stems, and positional roots.

4. Semiproductive

5. Examples:

wa:7- 'eat' (t) → wa:b'an 'remains of food' (n)

tx'a- 'chew' (T) → tx'ab'an 'something chewed one time' (n)

sji:l- 'slip' (t) → sji:lb'an 'where something has slipped once' (n)

xpe7l- 'plane wood' (t) → xpe7lb'an 'wood shavings' (n)

lo- 'eat fruit' (T) → lob'an 'bits of fruit' (n)

qej- 'lying down' (P) → qejb'an 'where someone has lain down' (n)

6. The noun indicates that which remains after completing the action.

55) 1. {-l} 'verbal noun'

2. Lengthens the ultimate vowel of a root which ends in a vowel (not the stem formative); -l elsewhere.

3. Derives a verbal noun from transitive and some intransitive stems.

4. Productive

5. Examples:

yo:la- 'speak' (t) → yo:lal 'to speak' (n)

aq'na:- 'work' (t) → aq'na:l 'to work' (n)

wa:7- 'eat' (t) → wa:7l 'to eat' (n)

b'e:ta- 'walk' (i) → b'e:tal 'to walk' (n)

6. Requires the stem formative.

56) 1. {-an} 'ordinal'

2. -l with the root ne:j- 'first';
-an with other numbers.

3. Derives noun stems for ordinal numbers from the cardinal numbers.

4. Productive

5. Examples:
tne:jal 'first'
tkab'an 'second'
to:xan 'third'
etc.

6. The ordinal numbers are always possessed.

57) 1. {-a:l} 'abstract noun'

2. -a:l after a stem or root with one short vowel;
-al ∿ -il after a stem or root with one long vowel;
-i:l after a stem or root with two vowels.
There are some exceptions.
All forms insert a /y/ glide if they occur after a vowel.

3. Derives abstract noun stems from any class of root except particles and affect roots, usually from adjectives.

4. Productive

5. Examples:

q'aq 'black' (A) → tq'aqa:l 'blackness' (n)

yo:xh 'red' (A) → tyo:xhal 'redness' (n)

a7 'water' (N) → ta7yil 'the liquid part, e.g. egg-white' (n)

xtaq'al 'coals' (n) → t-xtaq'ani:l 'coals from the firewood in general' (n)

b'a7n 'good' (A) → tb'a:nal 'goodness' (n)

q'ay- 'rot' (I) → tq'ayil 'rottenness' (n)

6. Most abstract nouns are always possessed, but not all. Common exceptions are:

ya:b' 'sick' (A) → ya:b'il 'sickness' (n)

jb'a:l 'rain' (N) → jb'a:lil 'rainy season' (n)

nim 'a lot' (A) → nima:l 'big, important' (a)

q'i:j 'sun' (N) → q'i:jal 'dry season' (n)

There are apparently some words which add the suffix twice and reduce it to -la:l or -li:l:

q'i:j 'sun' (N) → q'ijli:l 'dry spell in the rainy season' (n)

ti:b' 'reflexive relational noun' (n) →

tib'la:l 'form, appearance' (n)

58) 1. {-ab'i:l} 'abstract noun'

2. -ab'i:l

3. Derives noun stems from adjective roots.

4. Productive

5. Examples:

la7j 'lying' (A) → tlajab'i:l 'lies' (n)

lo:k 'crazy' (A) → tlokab'i:l 'craziness' (n)

tzit 'stuffed' (A) → ttzitab'i:l 'fullness' (n)

6. The derived noun is always possessed. This suffix apparently has exactly the same function as the abstract noun suffix -a:l, and on many roots they vary freely. Some roots require -ab'i:l, however. Long vowels in the stem are shortened.

59) 1. {-le:n} 'abstract noun'

2. -le:n

3. Derives abstract noun stems from transitive and intransitive roots and stems.

4. Productive

5. Examples:

kya:j- 'remain' (I) → tkyajle:n 'lateness' (n)

o:kx 'enter' (i) → tokxle:n 'entrance' (n)

b'i:tz- 'sing' (t) → b'itzle:n 'his singing' (n)

to:q- 'break' (t) → toqle:n 'fracture' (n)

6. The nouns are usually, but not always, possessed. Preceding long vowels are shortened.

60) 1. {-le7n} 'abstract noun'

2. -le7n

3. Derives noun stems from any class of root or stem except particles and affect words.

4. Productive

5. Examples:

q'o:j 'anger' (N) → q'ojle7n 'state of fighting' (n)

sikyt- 'be tired' (i) → sikytle7n 'tiredness' (n)

mati:j 'big' (A) → tijle7n 'old age' (n)

kab'- 'wound' (T) → kab'le7n 'wound' (n)

6. Indicates the state signified by the stem or root. Preceding long vowels are shortened.

61) 1. {-b'ji7b'il} 'nominalizer'

2. -b'ji7b'il

3. Derives noun stems from adjective stems which usually have the suffix -b'a:jal (71), without a change in meaning.

4. Nonproductive

5. Examples:

kib'b'a:jal 'visible' (a) → kib'ji7b'il 'ease of seeing' (n)

achb'a:jal 'happy' (a) → achb'aji7b'il 'happiness' (n)

b'e:yb'il 'poor' (a) → b'eyb'ji7b'il 'poverty' (n)

moyb'a:jal 'easy to dominate' (a) →

moyb'ji7b'il 'domination' (n)

6. The suffix is clearly related to the suffix -b'a:jal, but not analyzable.

62) 1. {-b'al} 'nominalizer'

2. -b'al

3. Derives noun stems from transitive stems.

4. Nonproductive

5. Example:

b'i:nch- 'arrange, do' (t) → b'i:nchb'al 'arrangement' (n)

63) 1. {-b'atz} 'nominalizer'

2. -b'atz

3. Derives noun stems from transitive roots.

4. Nonproductive

5. Example:

xi:m- 'think' (t) → xi:mb'atz 'thought' (n)

64) 1. {-l} 'nominalizer'

2. -l

3. Derives noun stems from intransitive roots.

4. Nonproductive

5. Examples:

ja:w- 'go up' (I) → ja:wl 'ascent' (n)

kub'- 'go down' (I) → kub'l 'descent' (n)

65) 1. {-tl} 'nominalizer'

2. -tl

3. Derives noun stems from unidentified roots.

4. Nonproductive

5. Example:

*aq'un- → aq'u:ntl 'work' (n)

66) 1. {-tz} 'nominalizer'

2. -tz

3. Derives noun stems from transitive and intransitive

roots.

4. Nonproductive

5. Examples:

iq- 'carry' (T) → iqtz 'load' (n)

q'a7j- 'ride a horse' (T) → q'a7jtz 'bench (for mounting horses)'(n)

o:k- 'enter' (I) → no:ktz 'entrance' (n)

2.4.3 ADJECTIVE STEM FORMATION

67) 1. {-7n} 'participial'

2. -n after a short stem formative;

-7...n after a short stem formative preceded by a resonant, in which case the glottal stop precedes the resonant;

-7n elsewhere.

3. Derives the past participle from transitive stems.

4. Productive

5. Examples:

sb'i:t'a- 'rip' (t) → sb'i:t'an 'ripped' (a)

ju:la- 'suck sweets' (t) → ju:7lan 'sucked' (a)

txaqo:- 'light' (t) → txaqo7n 'lit' (a)

6. Requires the stem formative. If the stem formative is a long vowel, it is shortened.

68) 1. {-na} 'participial'

2. -na

3. Derives the past participle from some transitive

and intransitive roots or stems.

4. Productive

5. Examples:

yu:p- 'put out fire' (t) → yupna 'put out' (a)

to:q- 'break' (t) → toqna 'broken' (a)

kyim- 'die' (I) → kyimna 'dead' (a)

no:j- 'fill' (I) → nojna 'full' (a)

6. Requires shortening of a preceding lon vowel.

69) 1. {-naj} 'participial'

2. -naj

3. Derives the past participle from transitive and intransitive roots and stems, and unknown roots.

4. Nonproductive

5. Examples:

*mal- → chmalnaj 'humid' (a)

yu:p- 'put out fire' (t) → yupnaj 'put out' (a)

ẍo:p- 'perforate' (t) → xopnaj 'perforated' (a)

q'a:y- 'rot' (I) → q'aÿnaj 'rotten' (a)

6. Requires shortening of preceding long vowels.

70) 1. {-l} 'positional adjective'

2. -ch after /l/ terminal roots and sometimes after /l/ initial roots;

-l elsewhere.

3. Derives positional adjectives from positional roots.

4. Productive.

5. Examples:

tutz'l 'seated'

koxhl 'lying down'

txulch 'quiet'

molch 'crouching'

lach'l 'standing with feet apart'

leq'ch 'far'

71) 1. {-b'a:jal} 'facility'

2. -b'a:jal

3. Derives adjective stems from positional and transitive roots and transitive stems.

4. Productive

5. Examples:

txik- 'cook' (T) → txikb'a:jal 'easy to cook' (a)

b'i:nch- 'do' (t) → b'inchb'a:jal 'easy to do' (a)

tutz'- 'sitting' (P) → tutz'b'a:jal 'easy to seat' (a)

6. Requires shortening of preceding long vowels.

72) 1. {-$V_1C_2V_1$:n} 'facility'

2. -$V_1C_2V_1$:n

3. Derives adjective stems from transitive roots or stems.

4. Productive

5. Examples:

to:q- 'break' (t) → toqoqo:n 'breakable' (a)

li:ch'- 'break' (t) → lich'ich'i:n 'breakable' (a)

mo:l- 'burn' (t) → mololo:n 'easily wilted' (a)

6. Requires shortening of preceding long vowels.

73) 1. {-chaq} 'distributive'

2. -chaq on all numbers and some quantity words;
-kaj optionally on kab' '2', ox- '3';
-kyaj optionally on kyaj- '4';
-7ix optionally on ox- '3'.

3. Derives distributive adjectives from numbers and some other quantity words.

4. Productive

5. Examples:

jwe7chaq 'five to each, five for one, five by five, five each'

Qaqchaq se:tz k'um wu7na.

'I bought the squash for 6¢ each.'

qaqchaq se:tz k'um wu7na
6¢ each it went out squash by me

Kab'kaj tte:n q'o:nkaxa tuj k'il.

'Put it in the pot two by two.

kab'kaj tte:n q'o:nkaxa tuj k'il
two by two it is put it down in it pot

Jwe7chaq se:tz q'o7n q'i:nan te:.

'They gave the hog plums at five for 1¢.

jwe7chaq se:tz q'o7n q'i:nan te:
five for 1¢ it was given out hog plum it

74) 1. {-ka} 'atenuator'

2. -ka

3. Derives adjective stems from adjective and noun roots.

4. Productive

5. Examples:

neqa:7 'close' (A) → neqa:7ka 'a little close' (a)

b'a7n 'good' (A) → b'a7nka 'a little good' (a)

spi:ky'an 'clear' (a) → spi:ky'anka 'a little clear' (a)

chib'aj 'meat' (n) → noqax chib'ajka 'meat that's so-so' (a)

75) 1. {-maj} 'emphatic'

2. -maj

3. This is added to the participle formed by -7n to give emphasis, without change in class or other change in meaning.

4. Productive

5. Examples:

tx'e:7man 'cut' → tx'e:7manmaj 'cut'

aq'na7n 'worked' → aq'na7nmaj 'worked'

sb'i:t'an 'ripped' → sb'i:t'anmaj 'ripped'

76) 1. {-an} 'adjectivizer'

2. -an

3. Derives adjective stems from noun roots.

4. Productive

5. Examples:

xaq 'stone' (N) → xaqan 'made of stone' (a)

tz'i:s 'garbage' (N) → tz'i:san 'clean' (a)

tx'otx' 'earth' (N) → tx'otx'an 'made of earth' (a)

lo:q' 'adobe' (N) → lo:q'an 'made of adobe' (a)

77) 1. {-an} 'adjectivizer'

2. -an

3. Derives adjective stems from transitive roots or stems and unidentified roots.

4. Nonproductive

5. Examples:

*t'ut'- → t'ut'an 'squishy' (a)

ju:k- 'burn' (t) → ju:kan 'burnable' (a)

*b'u:n- → b'u:nan 'soft ground' (a)

*lu:b'- → lu:b'an 'stretchy' (a)

78) 1. {-C_1aj} 'adjectivizer'

2. -C_1aj

3. Derives adjective stems from positional and unidentified roots.

4. Nonproductive

5. Examples:

*chap- → chapchaj 'tasteless' (a)

lin- 'laid out' (P) → linlaj 'laid out' (a)

*meq'- → meq'maj 'hot' (a)

*maq- → kyaqmaqmaj 'stuttering' (a)

*txub'- → txub'txaj 'tasty' (a)

*k'at- → xhk'atk'aj 'content' (a)

2.4.4 AFFECT STEM FORMATION

79) 1. {-an}

2. -an

3. Derives affect stems from positional roots, transitive roots and stems, and affect roots.

4. ?

5. Examples:

qit- 'untied' (P) → qitan 'the action of coming loose' (af)

qor 'noise of a turkey' (AF) → qoran 'noise of a turkey' (af)

qitz'- 'squeak' (T) → qitz'an 'the squeak that the bed makes (e.g.) when it is moved' (af)

80) 1. {-$V_1C_2V_1$}

2. -$V_1C_2V_1$

3. Derives affect stems from positional, affect, and unidentified roots.

4. Semiproductive

5. Examples:

txul- 'quiet' (P) → txululu 'action of walking without speaking' (af)

qitx' 'noise that pigs make with their teeth' (AF)

→ qitx'itx'i 'grinding of teeth' (af)

wit'- 'standing' (P) → wit'it'i 'action of going running' (af)

*wul- → wululu 'noise of several people talking' (af)

6. These forms are the bases from which affect verbs are derived (#33).

81) 1. {-ch}

2. -ch

3. Derives affect stems from positional and unidentified roots.

4. Nonproductive

5. Examples:

qej- 'lying down' (P) → qejch 'the action of lying down' (af)

*qom- → qomch 'the sound of water falling in a jar' (af)

2.4.5 DERIVED ADVERBIAL FORMATION

82) 1. {-nax} 'direction'

2. -nax

3. Derives directions from intransitive verbs of motion.

4. Nonproductive

5. Examples:

ja:w- 'go up' (I) → jawnax 'up'

e:l- 'go out' (I) → elnax 'west'

o:k- 'go in' (I) → oknax 'east'

u:l- 'arrive here' (I) → ulnax 'close'

kub'- 'go down' (I) → kub'nax 'down'

6. Requires shortening of preceding long vowels.

83) 1. 'time in future'

2.

3. Derives time in future from numbers and number compounds.

4. Nonproductive

5. Examples (only these exist):

ka:7j 'in two days'

oxj 'in three days'

koj 'in four days'

qu:b'x 'in a week' (seven days)

kyajlo:j 'in two weeks' (fourteen days)

wi:nq'aj 'in three weeks' (twenty days)

jnab' 'in a year'

kob'ab' 'in two years'

oxab' 'in three years'

84) 1. 'time in past'

2.

3. Derives time in the past from number and number compounds.

4. Nonproductive

5. Examples (only these exist):

kab'aje: 'day before yesterday'

oxoje: 'three days ago'

qub'xe: 'a week ago' (seven days)

kyajloje: 'two weeks ago' (fourteen days)

winq'aje: 'three weeks ago' (twenty days)

jna:b'a 'a year ago'

kob'a:b'a 'two years ago'

oxa:b'a 'three years ago'

2.4.6 HOW ROOTS AND STEMS ARE DERIVED (IN REVIEW)

So far eighty-four derivational affixes have been found. Of these, only thirty-eight are productive. Many of the nonproductive affixes seem to have the same function (for instance, all of the causatives), but because they are nonproductive it is impossible to decide if the functions were once somewhat different or not. It will also be noted that many of the nonproductive affixes with similar functions have closely related phonological shapes. For instance, all of the 'applicative' suffixes begin with resonants, while the 'causative' suffixes have sets which begin with the same consonant and have several different vowels. In the latter case vowel dissimilation seems to have been at least part of the reason for the proliferation of forms, but such dissimilation is not consistent in the forms today. Analyzing the base forms of these apparently related affixes is a problem for the historical linguist.

The productive affixes have little overlap in

function. Most of them either have very different functions, or go with different roots, or are distinguished semantically. A few are not apparently different, however, such as #57 and #58, both of which derive the abstract noun from adjectives. Where no difference in the function of the affixes was indicated in the above listing, none was found. The charts which follow review the derivational process, by root or stem class. Productive affixes are indicated by (pr), semiproductive affixes are indicated by (s), and affixes not marked with either are nonproductive.

Root or Stem Class	Derived Stem Class	By
transitive	→ transitive	1) s-∿xh-∿x-∿ch- (pr)
		3) stem formative (pr)
		10) -b'e: 'causative'
		21) -pi: 'causative'
		22) -pu: 'causative'
		27) -tz'u: 'causative'
		29) -naje:7 'repetitive'
		30) -7kj 'processive' (pr)
		31) -7tz 'processive (pr) imperative'
transitive	→ intransitive	32) -n 'intransitivizer' (pr)
		36) -b'aj 'passive' (pr)

Root or Stem Class	Derived Stem Class	By
transitive	→ intransitive	37) -e:t 'passive' (pr)
		38) -j 'passive' (pr)
		39) -njtz 'passive' (s)
		41) -ch 'intransitivizer'
	→ noun	50) -l 'agentive' (pr)
		51) -e:nj 'patient' (pr)
		52) -b'il 'instrument' (pr)
		53) -b'e:n 'locative' (pr)
		54) -b'an 'remainder' (s)
		55) -l 'verbal noun' (pr)
		59) -le:n 'abstract noun' (pr)
		60) -le7n 'abstract noun' (pr)
		62) -b'al 'nominalizer'
		63) -b'atz 'nominalizer'
		66) -tz 'nominalizer'
	→ adjective	67) -7n 'participial (pr)
		68) -na 'participial' (pr)
		69) -naj 'participial'
		71) -b'a:jal 'facility' (pr)
		72) -$V_1C_2V_1$:n 'facility' (pr)
		77) -an 'adjectivizer'
	→ affect stem	79) -an (?)
intransitive	→ transitive	10) -b'e: 'causative'
		15) -le: 'causative'
		25) -sa: 'causative' (s)

Root or Stem Class	Derived Stem Class	By
intransitive	→ transitive	30) -7kj 'processive' (pr)
		31) -7tz 'processive imperative' (pr)
	→ intransitive	47) -7...al 'specific end'
	→ noun	50) -l 'agentive' (pr)
		52) -b'il 'instrument' (pr)
		55) -l 'verbal noun' (pr)
		57) -a:l 'abstract noun' (pr)
		59) -le:n 'abstract noun' (pr)
		60) -le7n 'abstract noun' (pr)
		64) -l 'nominalizer'
		66) -tz 'nominalizer'
	→ adjective	68) -na 'participial' (pr)
		69) -naj 'participial'
	→ adverbial	82) -nax 'direction'
positional	→ transitive	3) stem formative (pr)
		4) -b'a: 'transitivizer' (pr)
		5) -V: 'transitivizer' (pr)
		11) -cha: 'causative'
		13) -chu: 'causative'
		19) -na: 'causative'
		21) -pi: 'causative'
		22) -pu: 'causative'
		24) -q'u: 'causative'
		29) -naje:7 'repetitive'
	→ intransitive	35) -e:7 'vertitive' (pr)

Root or Stem Class	Derived Stem Class	By
positional	→ intransitive	42) -chaj 'intransitivizer'
		43) -paj 'intransitivizer'
		45) -tz'aj 'intransitivizer'
	→ noun	52) -b'il 'instrument' (pr)
		53) -b'e:n 'locative' (pr)
		54) -b'an 'remainder' (s)
		57) -a:l 'abstract noun' (pr)
		60) -le7n 'abstract noun' (pr)
	→ adjective	70) -l 'positional adjective' (pr)
		71) -b'a:jal 'facility' (pr)
		78) -C_1aj 'adjectivizer'
	→ affect stem	79) -an (?)
		80) -$V_1C_2V_1$ (s)
		81) -ch
noun	→ transitive	3) stem formative (pr)
		6) -la: 'applicative'
		7) -wa 'applicative'
		8) -ya 'applicative'
		9) -yi: 'applicative'
	→ noun	1) s-∿xh-∿x-∿ch- (pr)
		48) aj- 'agent' (pr)
		49) aj- 'native' (s)
		57) -a:l 'abstract noun' (pr)
		58) -ab'i:l 'abstract noun'(pr)

Root or Stem Class	Derived Stem Class	By
noun	→ noun	60) -le7n 'abstract noun' (pr)
	→ adjective	74) -ka 'atenuator' (pr)
		76) -an 'adjectivizer' (pr)
adjective	→ transitive	25) -sa: 'causative' (s)
	→ intransitive	34) -ax 'vertitive' (pr)
		38) -j 'passive' (pr)
		40) -b'a 'intransitivizer'
		44) -t 'intransitivizer'
	→ noun	1) s-∿xh-∿x-∿ch- (pr)
		56) -an 'ordinal' (pr)
		57) -a:l 'abstract noun' (pr)
		58) -ab'i:l 'abstract noun'(pr)
		60) -le7n 'abstract noun' (pr)
		61) -b'ji7b'il 'nominalizer'
	→ adjective	1) s-∿xh-∿x-∿ch- (pr)
		73) -chaq 'distributive' (pr)
		74) -ka 'atenuator' (pr)
		75) -maj 'emphatic' (pr)
	→ adverbial	83) 'time in future'
		84) 'time in past'
affect	→ transitive	3) stem formative (pr)
		5) -V: 'transitivizer' (pr)
		11) -cha: 'causative'
		13) -chu: 'causative'
		14) -k'u: 'causative'

Root or Stem Class	Derived Stem Class	By
affect	→ transitive	21) -pi: 'causative'
		22) -pu: 'causative'
		24) -q'u: 'causative'
		27) tz'u: 'causative'
	→ intransitive	33) -:n 'affect' (pr)
	→ affect	79) -an (?)
		80) $-V_1C_2V_1$

2.5 PHRASE FORMATION

Mam has verb, noun, and adverb phrases.

2.5.1 VERB PHRASES

There are two types of verb phrases: transitive and intransitive. The elements in the verb phrase have already been discussed (2.2.1), with the major exception of directionals. Directionals are auxiliary elements in the verb phrase which indicate direction of movement and are derived from intransitive verbs of motion. The simple directionals and the verbs from which they derive are:

Directional:		Intransitive Verb:	
xi	'away from'	xi7	'go'
tzaj	'toward'	tza:j	'come'
ul	'there to here'	u:l	'arrive here'

pon	'here to there'	po:n	'arrive there'
kub'	'down'	kub'	'go down'
jaw	'up'	ja:w	'go up'
el	'out'	e:l	'go out'
ok	'in'	o:k	'go in'
kyaj	'remaining'	kyaj	'remain'
aj	'returning from here'	a:j	'return'
iky'	'passing'	iky'	'pass by'
b'aj	'complete'	b'aj	'finish'

The primary derivational process involved is that a long vowel in the verb form shortens in the directional.

Xi and tzaj commonly combine with other directionals, according to the semantics, to add the elements 'away' or 'toward'. They are suffixed to the directional which they modify and xi has the allomorph -x while tzaj has the allomorph -tz in this position. Eleven compound directionals are formed in this way:

ku7x	'down away'	<	kub' + xi
ku7tz	'down toward'	<	kub' + tzaj
jax	'up away'	<	jaw + xi
jatz	'up toward'	<	jaw + tzaj
ex	'out away'	<	el + xi
etz	'out toward'	<	el + tzaj
okx	'in away'	<	ok + xi
oktz	'in toward'	<	ok + tzaj
ajtz	'returning from there'	<	aj + tzaj

iky'x 'passing to other side' < iky' + xi

iky'tz 'passing to this side' < iky' + tzaj

The first directional in such a compound drops a final /l/ or /w/.

In rarer cases other directionals combine with each other, for example:

i7pan	'passing there'	<	iky' + pon
japan	'up there'	<	jaw + pon
ajk	'returning down'	<	aj + kub'
ku7xb'aj	'down there complete'	<	kub' + xi + b'aj
etzb'aj	'out here complete'	<	el + tzaj + b'aj

Directionals can be a part of the verb phrase, in which case they have an effect on the structure of the phrase.

2.5.1.1 THE TRANSITIVE VERB PHRASE

The simple transitive verb phrase without directionals has a structure as shown in the following chart. In all the charts, double lines indicate juncture or places where elements are separable from the phrase; + indicates an obligatory element while ± indicates an optional element. The horizontal lines show that either the first five aspects or mode is obligatory, but that they do not co-occur. The aspect ok is optional with the potential mode.

Aspect	Patient Set B	Agent Set-A	Stem	Mode	Enclitics
ma	chin-	n-∿w-			a ∿ ya
o	Ø∿tz-∿ tz'-∿k-	t-			a ∿ ya
n-	qo-	q-			a ∿ ya
x-	chi-	ky-			a ∿ ya
Ø					
+					
ok				-a7 (pot)	
±					
				-m (imp)	
	+	+	+	+	+

With directionals, the structure is different:

(Indicative)

Aspect	Patient Set B	Direc-tional	Mode	Compound Direc-tional	Agent Set A	Stem	Enclitics
ma	chin-			-x	n-∿w-		a ∿ ya
o	Ø∿tz-∿ tz'-∿k-			-tz	t-		a ∿ ya
n-	qo-				q-		a ∿ ya
x-	chi-				ky-		a ∿ ya
Ø							
+							
ok			-l (pot)				
±	+	+	+	±	+	+	+

(Imperative)

Patient Set B	Agent Set A	Stem	Direc-tional	Mode	Compound Direc-tional	Enclitics
chin-	n-∿w-				-x	a ∿ ya
Ø∿tz-∿ tz'-∿k-	t-			Ø (imp)	-tz	a ∿ ya
qo-	q-					a ∿ ya
chi-	ky-					a ∿ ya
+	+	+	+	+	±	+

Examples:

Simple verb phrase:

ma chittzyu:ya 'you grabbed them'

ma	chi	t	tzyu:		ya
aspect	patient	agent	stem	(mode)	enclitic

Indicative verb phrase with directional:

ma chiku7tz ttzyu7na 'you grabbed them down there'

ma	chi	ku7		tz	t	tzyu7n	a
aspect	patient	direc-	(mode)	com-pound direc-tional	agent	stem	encli-tic =

Imperative verb phrase with directional:

chitzyu7nkatza 'grab them down here!'

chi	Ø	tzyu7n	ku7	Ø	tz	a
patient	agent	stem	direc-tional	mode	compound directional	enclitic

Directionals in final position are usually expressed by a reduced allomorph in which vowels are dropped or neutralized and /b'/ or /7/ is dropped:

xi → x kub' → ka

tzaj → tz ku7tz → katz

ku7x	→ kax	etz	→ atz
jax	→ jx	ok	→ k
jatz	→ jtz	oktz	→ ktz
el	→ al	okx	→ kx
ex	→ ax	kyaj	→ kaj

2.5.1.2 THE INTRANSITIVE VERB PHRASE

The simple intransitive verb phrase without directionals has the following structure:

Aspect	Subject Set B	Stem	Mode	Enclitics
ma	chin-			a ∿ ya
o	Ø∿tz-∿ tz'-∿k-			a ∿ ya
n-	qo-			a ∿ ya
x-	chi-			a ∿ ya
Ø				
+				
ok ±			-l (pot)	
			Ø (imp)	
	+	+	+	+

The following two charts show the structure of the intransitive verb phrase with directionals. In the first chart, the structure of a verb and directional is shown. In the second chart, the structure of a verb whose stem is one of the intransitive verbs from which the directionals are derived is shown. These stems can compound with other directional elements.

With directionals:

Aspect	Subject Set B	Directional	Mode	Compounding Directional	Stem	Enclitics
ma	chin-			-x		a ∿ ya
o	Ø∿tz-∿ tz'-∿k-			-tz		a ∿ ya
n-	qo-					a ∿ ya
x-	chi-					a ∿ ya
Ø						
+						
ok			-l (pot)			
±						
			Ø (imp)			
	+	+	+	±	+	+

Stem and compounding elements:

Aspect	Subject Set B	Stem		Mode	Compounding Directional	Enclitics
ma	chin-	xi7	e:l		-x	a ∿ ya
o	Ø∿tz-∿ tz'-∿k-	tza:j	o:k		-tz	a ∿ ya
n-	qo-	u:l	kyaj			a ∿ ya
x-	chi-	po:n	a:j			a ∿ ya
Ø		kub'	iky'			
+		ja:w	b'aj			
ok				-l (pot)		
±						
				Ø (imp)		
	+	+		+	±	+

Examples:

Simple intransitive verb phrase:

ma chinb'e:ta 'I walked'

ma	chin	b'e:t		a
aspect	subject	stem	(mode)	enclitic

Intransitive verb phrase with directionals:

ma jaw b'i:t'j 'it exploded'

ma	Ø	jaw			b'i:t'j	
aspect	subject	direc- tional	(mode)	(compound direc- tional)	stem	enclitic

(ok) qoja:waxa 'we will come up'

(ok)	qo	ja:w	al	x	a
aspect	subject	stem	mode	compounding directional	enclitic

Imperative:

chimok'e:kaxa 'crouch down!'

chi	mok'e:7	ku7	Ø	x	a
subject	stem	direc- tional	mode	compounding directional	enclitic

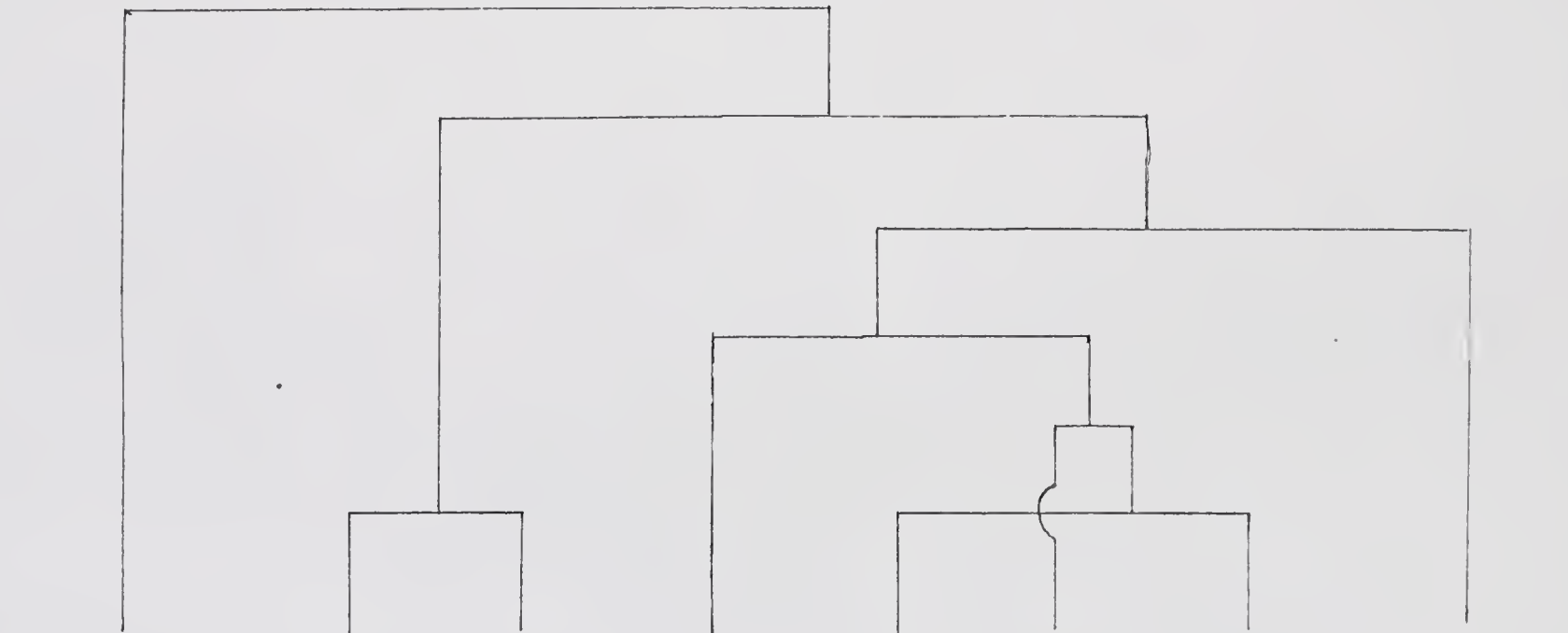
2.5.2 NOUN PHRASES

There are two main types of noun phrases: third person noun phrases and pronominal phrases.

2.5.2.1 THIRD PERSON NOUN PHRASES

The head of a third person noun phrase is a third person noun. Third person noun phrases indicate the subject, agent, or patient of the verb, or the noun possessor. The immediate constituent structure of the noun phrase follows:

IMMEDIATE CONSTITUENT STRUCTURE OF THE NOUN PHRASE



Numbers in parentheses on the table are keyed to the following discussion. If there are no other elements before the noun the adjective precedes it. In this position the adjective may actually be functioning as a pronoun phrase (2.5.2.2), but since the person is unmarked on a third person pronoun, and translation does not reveal a difference in structure, the reordering may not indicate a change in structure. A few adjectives commonly precede nouns even if they are also preceded by other elements; these are mati:j 'big', nim 'a lot', ni: 'small', and tal 'small'.

1) Noun:

The noun consists of any simple or compound noun stem. It may be the only element of the noun phrase. Nouns can be conjoined by the particles b'ix 'and' or mo 'or'. Examples:

Ma tz'o:kx we:ch.

'The fox went in.'

ma tz'o:kx we:ch
it went in fox

Nti7 o:k ninq'i:j.

'There wasn't a celebration.'

nti7 o:k ninq'i:j
there isn't it went in celebration

Ma chitzyu:n xi:naq.

'The men grabbed it.'

ma chitzyu:n xi:naq
they grabbed men

Ti7jla qawitz b'ix chik'u:l...

'Behind the hills and forests...'

ti7jla qawitz b'ix chik'u:l
behind hills and forest

2) Possessor:

If the noun is possessed it is inflected for the possessor by Set A prefixes and is followed by another noun phrase which indicates the possessor. If the second noun is deleted it can be specified by a noun classifier which is attached to or follows the possessed noun. (See the end of this section for a discussion of the noun classifier.) The objects of relational nouns are always the possessors of these nouns (2.2.2.1). Examples:

At tna:bil.

'It is his thought.'

at tna:b'il
there is his thought

Ntzaj tma7n nma:na.

'My father said it'

ntzaj tma7na nma:na
he said it away my father

...ma:x tja: xja:l.

'...up to the person's house.'

ma:x tja: xja:l
up to his house person

tuj xo:ch

'in the well'

tuj xo:ch
its inside well

twitz swe7j

'his head the old man'

twitz swe7j
his head old man (noun classifier referring to deleted nma:na 'my father')

The possessor may also be possessed in the same way, giving a string of possessed nouns. Examples:

twa: tb'anal axi7n

'his food of good corn'

twa: tb'anal axi7n
his food its goodness corn

tuj kywitz xja:l

'in the people's heads'

tuj kywitz xja:l
its insides their heads person

3) Plural Clitic:

There is a clitic qa which is optional to indicate plural. It usually precedes the noun. Examples:

Nti7 qaqpwa:q.

'There isn't any of our money.'

nti7 qaqpwa:q
there isn't our money plural

ti7j qab'e:

'on the roads'

ti7j qab'e:
on it roads

4) Adjectives:

A noun can be modified by an adjective or conjoined adjectives. The adjective precedes the noun unless there are other elements preceding the noun, specifically a demonstrative, number, other noun or pronoun, a negative, or other particles. In this case the adjective follows the noun. Exceptions are mati:j 'big', nim 'a lot', ni: 'small', and tal 'small', which can follow or precede the noun even if there are other elements preceding it. Adjectives can be conjoined by the particles b'ix 'and' or mo 'or'. Adjectives must be conjoined by one of these particles; they cannot be listed. There are almost never more than two adjectives conjoined in this way. Examples:

q'ayna lo7j

'rotten fruit'

q'ayna lo7j
rotten fruit

nuch b'ix sib' tx'ya:n

'small and gray dog'

nuch b'ix sib' tx'ya:n
small and gray dog

spiky'a twitz tx'otx'

'clear morning'

spiky'a twitz tx'otx'
clear above it earth

ju:n twi:xh saq

'a white cat'

ju:n twi:xh saq
one his cat white

tu:k' tib'la:l cha7x b'ix nk'ant

'with its blue and brilliant color'

tu:k' tib'la:l cha7x b'ax nk'ant
with it its color blue and burning

kab' mati:j xja:l

'two important men'

kab' mati:j xja:l
two important person

ju:n kasti:wa mati:j

'a big punishment'

ju:n kasti:wa mati:j
one punishment big

5) Number:

Number precedes the noun. The number one is also the indefinite article. The number one has the following allomorphs:

jun before an unpossessed noun;

ju:n before a possessed noun or with no noun.

Examples:

at ju:n nja:ya

'it is my (one) house'

at jun ja:

'it is a house'

at ju:n

'it's one; there's one'

Ju:7n 'each' is also derived from ju:n 'one' and behaves like any other number. The ordinal numbers are not like cardinal numbers because the ordinal numbers are possessed nouns and therefore are in the noun position (see 2.4.2 #56 for their derivation). Numbers are not used in a noun phrase which is headed by an ordinal number. Examples:

at qaq xja:l

'there are six people'

at qaq xja:l
there is six person

jun tx'ya:n q'aq

'one black dog'

jun tx'ya:n q'aq
one dog black

kab' twitz axi7n

'two grains of corn'

kab' twitz axi7n
two its head corn

ju:7n xo:ch

'each well'

6) Measure:

Measure words form a constituent with number and together they modify the noun. Measure words are always preceded by numbers or the interrogative particle jtē7 'how much, how many?'. Examples:

jun laq ka:lt

'a plateful of soup'

kab' ma7l tk'a7ya q'e7n

'two shots of booze'

kab' ma7l tk'a7ya q'e7n
two shot your drink booze

7) Demonstratives:

The demonstrative is the first element in the noun phrase. Demonstratives which function in the noun phrase are aj or ajaj 'this, that', b'ixh 'this, that (female)', and naq 'this, that'. Examples:

aj kab' sama:n

'these two weeks'

aj mati:j k'uxb'il

'that big tool'

naq ju:7nqa xja:l

'all those people'

naq ju:7naqa xja:l
that each plural person

ajaj o:x tx'ya:n saq

'these three white dogs'

Noun Classifier:

A third person noun may be further specified by one of a set of enclitics which serve as noun classifiers and act like pronouns. The enclitics are only used when the noun or noun phrase to which they refer is deleted, in which case they follow the constituent immediately preceding the deleted element. Most of the noun classifiers are derived from common nouns. They are:

Noun Classifier		Common Noun	
jal	'non-human'	ji:l	'wild animal'
q'a	'young man'	q'a:	'young man'
txan	'young woman'	txi:n	'young woman'
ma	'man'	mati:j	'big'
swe7j	'old man'	swe7j	'old man'
xya:7	'old woman'	ya:b'aj	'grandmother'
xlaq'	'little boy'	xlaq'	'little boy'
tal txi:n	'little girl'	tal txi:n	'little girl'
nu7xh	'baby'	nu7xh	'baby'

Examples:

O:7tzan txi7 maqu:tjal.

'It was buried'

o:7tzan txi7 maqu:tjal
well it was buried it (non-human, referring to deleted mange:ra 'hose')

...tkule:n telq'a7nma pwaq.

'...because he stole the money.'

tkule:n telq'a7nma pwaq
because he (man) stole money (refers to deleted
Makal Tis 'Marcos Ortiz')

2.5.2.2 PRONOUN PHRASES

Pronoun phrases can serve the same functions as noun phrases and in addition can be the only constituent in a sentence. Pronoun structure of both the independent and locative sets of pronouns is discussed in 2.2.2.5; pronominal phrases functioning as simple sentences are discussed in 2.6.1.1. There are no elements in the pronoun phrase other than the pronoun, the noun classifier, and the plural enclitic. Third person pronouns are often further specified by the addition of a noun classifier, especially if the pronoun is an independent pronoun. The plural clitic is only used with the third person plural of the independent pronouns, and is obligatory in this case. Examples:

Pronoun Alone:

A:x qo7ya nqu:l b'i:nchal tete:.

'We came to fix it.'

a:x qo7ya nqu:l b'i:nchal tete:
the same we we came to fix it

te7 neqa:7 yi:n

'those who are a little closer'

te7 neqa:7 yi:n
they are close a little

Baqa at kab'ma at amb'il kyi7j.

'There are hardly two men who have time.'

baqa at kab'ma
hardly there is two men (noun classifier)

at amb'il kyi7j
there is time by them

At na:n Wi:t? Ti:na.

'Is Natividad there? I'm here.'

at na:n wi:t ti:na
is there ma'am Natividad I'm here

aja Lo:xh Tmi:nk b'ix qi:na

'that Alonso Domingo and I'

aja Lo:xh Tmi:nk b'ix qi:na
that Alonso Domingo and I

Pronoun + Noun Classifier:

A:tzan swe7j aj q'il twitzxax.

'It's he (old man) who plans.'

a:tzan swe7j aj q'il twitzxax
well it's old man who giver his head

Pronoun + Plural:

a:tzanqa nja:w tx'otx' kyu7n tu7n trakto:r

'those who lift the dirt with tractors'

a:tzanqa nja:w tx'otx' kyu7n
well they it is going up earth by them

tu7n trakto:r
by it tractor

Pronoun + Plural + Noun Classifier:

Baqa ax a:qama iqa:nan ti7j o:nb'il.

'They (man) hardly asked for help.'

baqa ax a:qama iqa:nan ti7j
hardly also they men they asked for about it

o:ṅb'il
help

2.5.3 ADVERB PHRASES

Adverb phrases consist of or are introduced by adverbial words (particles, 2.2.5; some adjectives, 2.2.3; affect words, 2.2.4; or derived adverbials, 2.4.5), or consist of noun phrases with adverbial functions.

2.5.3.1 ADVERBIALS

Most adverbials are used alone or in a string with other adverbials. A few introduce phrases; for example, the locative particle ma:xa 'until, up to' has a toponym or place as its object, as does asta 'until, up to'. Examples:

B'alā ja7ka chitzan q'ankyo:q.

'"Maybe so" said the lightning'

b'ala ja7ka chitzan q'ankyo:q
maybe yes well he said lightning

Ka:si ma:7 txi b'aj ma:x Tuj Ch'yaq.

'It's almost finished up there in Tuchiac.

ka:si ma:7 txi b'aj ma:x tuj ch'yaq
almost it finished up there Tuchiac

Atx o:x ta:nka tu7n tb'ant ja7la.

'There are still three tanks which have to be made now.'

atx o:x ta:nka tu7n tb'ant ja7la
there is still three tank that is made now

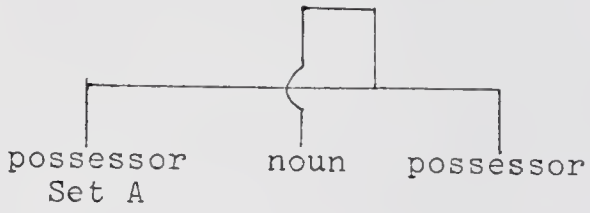
Noq qit tjaw b'i:t'j na:j.

'Only at times it explodes quickly.'

noq qit tjaw b'i:t'j na:j
only at times it explodes up quickly

2.5.3.2 ADVERBIAL NOUN PHRASES

An adverbial noun phrase is always headed by one of the relational nouns (2.2.2.1). It has the same structure as any other noun phrase, with reduced elements. The possible elements are:



As with other noun phrases the possessor may itself be possessed, resulting in a noun phrase which contains other noun phrases. Adverbial noun phrases indicate location or time. Examples:

ma:taqx tel spiky'a twitz tx'otx' te: pri:m

'from when it gets light in the morning'

ma:taqx tel spiky'a twitz tx'otx' te: pri:m
it had risen clear its face earth in the morning

Na7x tku7x b'aj kymaqu7na tjaq' tx'otx'?

'You-all still haven't buried it under the ground?'

na7x tku7x b'aj kymaqu7na tjaq' tx'otx'
still not they buried it down away under it earth

To:ns matzan tz'o:kx we:ch tuj tja: toky' xaq.

'Then the fox went in his house in the hole in the rock.'

to:ns matzan tz'o:kx we:ch tuj
then well he entered away fox in it

tja: toky' xaq
his house its hole rock

Nti7 a7 tzi kyja:.

'There isn't water by their house.'

nti7 a7 tzi kyja:
there isn't water its entrance their house

Ma:x tokx ma: ti:b' pwe:nt tuj kyqa7.

'There it is above the bridge by the hot springs.'

ma:x tokx ma: ti:b' pwe:nt
up there it enters there above it bridge

tuj kyqa7
in it hot water

2.6 SENTENCE FORMATION

This section describes simple sentences and their constituents, sentence level syntactic enclitics and their functions, and complex and compound sentence formation.

2.6.1 SIMPLE SENTENCES

There are three types of simple sentences: linking, intransitive, and transitive. The types are defined by the constituents which occur with each.

2.6.1.1 LINKING SENTENCES

The single necessary constituent in a linking sentence is a pronoun phrase of either the locational or independent type. The pronoun contains the subject, indicated by the person markers, and the linker. If the pronoun is of the independent type, the linkage is of a copulative or equative nature, while if the pronoun is locative the linkage is of a locative or existential nature.

The base of a copulative or equative pronoun is the attribute, and consists of a demonstrative, other adjective, or noun (2.2.2.5). The attribute is not necessarily part of the base, however, but may consist of a separate phrase or embedded sentence.

The base of a locative pronoun signals its type. The pronoun is usually accompanied by a locative phrase. If there is no locative phrase, then the sentence is existential, and the locative marker signals the existence of the person indicated by the person markers. Third person subjects can be specified in a separate noun phrase (and usually are). Examples:

Equative: (+ attribute + subject)

Xja:l qi:na.

'I am a person.'

Saq.

'It is white.'

Sikynaja.

'You are tired.'

Locative: (+ subject + locative)

Te7 ti7j Ra:nch.

'They are (in) Turrancho.'

Tzlu:7 at jun aq'u:ntl.

'Here is work.'

To7 neqa:7.

'We are near.'

Existential: (+ subject)

Ti:na.

'I am.'

At pwaq.

'There is money.'

Other constituents which can occur with linking sentences are temporals and other adverb phrases not including those that indicate manner. Examples:

Baqa at amb'il.

'There's hardly time.'

baqa at amb'il
hardly there is time

At jun aq'u:ntl ojtxa.

'There was work before.'

at jun aq'u:ntl ojtxa
there is one work before

B'ala at qaq xja:l.

'Maybe there are six people.'

b'ala at qaq xja:l
maybe there is six person

Sikynaj qi:na ja7la.

'I'm tired now.'

sikynaj qi:na ja7la
tired I'm now

It is important to note that the pronouns do not always act as links in this type of sentence. The independent pronouns can also indicate the actors in place of noun phrases. Linking sentences, however, require pronoun phrases. If the subject is further specified by a noun phrase it follows the pronoun phrase. Temporals come last in the sentence, other adverbials are first, and locatives may come first or last.

2.6.1.2 INTRANSITIVE SENTENCES

Intransitive sentences are headed by intransitive verbs (2.2.1.2 and 2.5.1.2). These are inflected for aspect or mode and for subject. In addition the intransitive sentence may include a noun phrase indicating the subject. Examples: (In these and similar examples the numbers refer to the underlined phrases. Note that the English phrase order is different from the Mam, and that the numbers refer back to the Mam.)

Ma b'e:t xu7j.
1 2

'The woman walked!'
2 1
subject verb

Chinxe:la.
1

'I will go.'
1
verb

Other constituents which may occur in the intransitive sentence are the adverbials (locative, manner, temporal, other adverbials) and relational noun phrases indicating locative, causative, instrument, associative, topic, and benefactive (2.2.2.1). Adverbials generally occur first or last in the sentence. The subject follows the intransitive verb, and the relational noun phrases follow the subject. If there are a number of relational noun phrases in the sentence they apparently occur according to a preferred order, all the details of which are not understood. The order is:

Locative + Instrumental + Associative + Benefactive

One of these elements can precede the verb for emphasis. Examples:

Ma aq'na:n Kye:l tjaq' kjo7n tu7n asdo:n tu:k' Chep.
1 2 3 4 5

'Miguel worked in the cornfield with a hoe with José.'
2 1 3 4 5
subject verb locative instrument associative

O tza:laj xja:l ti7j tpa:.
1 2 3

'The person was happy about his bag.'
2 1 3
subject verb topic

Nne:tztzanta nima:l axi7n ja7la.
1 2 3

'The corn comes out now.'
2 1 3
subject verb temporal

Ikytzanjo ma:7 tza:j kyq'o:j xja:l.
1 2 3

''The anger of the people came like this.'
3 2 1
subject verb manner

Kjapane:lxta a7 ma:x tuj Ch'yaq.
1 2 3

'The water will arrive up there in Tuchiac.'
2 1 3
subject verb locative

2.6.1.3 TRANSITIVE SENTENCES

Transitive sentences are headed by a transitive verb (2.2.1.1 and 2.5.1.1) which is inflected for aspect or mode and for agent and patient. The transitive sentence may include noun phrases for agent and patient. Examples:

Ma kub' kytzyu7n xi:naq che:j.
1 2 3

'The men grabbed the horse.'
2 1 3
agent verb patient

Ma chinok ttze:q'ana.
1

'You hit me.'
1
verb

The transitive sentences can include all possible sentence constituents. In addition to those already listed for intransitive sentences these include the agent and patient, and the dative (indirect object, expressed by a relational noun phrase headed by the relational noun -e:). Normal ordering of these constituents is:

verb + agent + patient + dative

As with intransitives, adverbials usually occur before the verb or last in the sentence, and other relationals follow the dative. Examples:

Ma txi tyek'an Chep u7j te: ti7jxja:l tu7n tqan q'a:q'.
1 2 3 4 5

'José showed the book to the man by the firelight.'
2 1 3 4 5
agent verb patient dative instrumental

Ma b'aj taq'na7n Chep tjaq' kjo7n tu:k' Xwa:n te: xja:l.
1 2 3 4 5

'José worked in the cornfield with Juan for the person.'
2 1 3 4 5
agent verb patient associative benefactive

B'isan kye:tzanma ma txi7 qq'o7na kyaqi:lkax o:nb'il.
1 2 3 4

'Soon we gave them all the help.'
1 3 2 4
temp. verb dative patient

2.6.2 VARIATIONS OF SIMPLE SENTENCES

The creation of negatives, interrogatives, passives, and imperatives from simple sentences is described here.

2.6.2.1 NEGATIVES

Negation of any part of the sentence occurs through use of the appropriate negative particle. The negative particle usually occurs first in the sentence or part being negated. See section 2.6.5 for some aspects of negation peculiar to complex sentences. The following examples illustrate the use of negative particles with various types of sentences.

1) Equative Pronouns: Negated by nya:7 or mya:7.

Xi:naq qi:na. 'I am a man.'

Nya:7 xi:naq qi:na. 'I am not a man.'

2) Locative and Existential Pronouns: Negated by mi7a:l if they refer to people. Mi7a:l takes the place of the locative and is inflected in the same way.

Ti:na tzlu:7. 'I am here.'

Mi7a:l qi:na tzlu:7. 'I'm not here.'

Ata tzlu:7. 'You're here.'

Mi7a:la tzlu:7. 'You're not here.'

3) Locative and Existential Pronouns: Negated by nti7 or miti7 if they refer to third person non-human noun phrases.

At chib'aj. 'There is meat.'

Nti7 chib'aj. 'There isn't meat.'

At a7 tzi qja:y7. 'There's water by our house.'

Nti7 a7 tzi qja:y7. 'There isn't water by our house.'

4) Intransitive and Transitive Sentences: Negated by nti7 or miti7, or by mi:7n. Mi:7n implies the potential and does not need to be marked as such. Nti7 only occurs with the nonpotential in simple sentences, and even then often requires subordination (see 2.6.5.3).

O tz'etz nlaq'o7na. 'I bought it.'

Nti7 o tz'etz nlaq'o7na. 'I didn't buy it.'

Ma chinb'e:ta. 'I walked.'

Nti7 ma chinb'e:ta. 'I didn't walk.'

Ktza:jal jb'a:l ja7la. 'It will rain today.'

Mi:7n tza:j jb'a:l ja7la. 'It won't rain today.'

5) Imperatives: Negated by mi:7n.

B'e:ta. 'Walk!'

Mi:7n b'e:ta. 'Don't walk!'

Tzyu:ma. 'Grab it!'

Mi:7n tzyu:ma. 'Don't grab it!'

6) Negation of Certain Words and Constructions:

waja 'I want' nky'i7ya 'I don't want'

(Both of these are verbs which take all Set A prefixes for person.)

ju:7n 'each one'	miju:n 'no one, nothing'
ja7ka 'it's possible'	nla:y 'it's not possible'
kukx 'still'	na7x 'still not'
jo:7 'yes'	mi:7n 'no'

7) In addition, the negative particle mi: can combine with other particles to form negatives. Examples:

iky' 'like this'	miky' 'not like this'
qa 'if'	qami: 'if not'

2.6.2.2 INTERROGATIVES

There are two types of interrogatives: yes/no questions and information questions. Yes/no questions can be indicated by the interrogative enclitic pa or by rising intonation on the last word in the question, rather than the declarative falling intonation. Example:

At a:tz'an. 'There is salt.'

At a:tz'an? 'Is there salt?'

Atpa a:tz'an? 'Is there salt?'

Information questions are introduced by one of the interrogative particles (2.2.5.1). There are no other basic changes in the sentence. The use of interrogatives in complex sentences is discussed in section 2.6.5. Examples:

Jatuma tzajal qi:7n t-xe:l kypwa:qa?

'Where are we going to get the replacement of their money?'

jatuma tzajal qi:7n t-xe:l kypwa:qa
where will we get its replacement their money

Ti: tz'okx qse7n?

'What are we going to do?'

ti: tz'okx qse7n
what do we do

Jte7tzan pwaq jaka txi ti:7n?

'How much money can he take?'

jte7tzan pwaq jaka txi ti:7n
well how much money is it possible he takes away

Tza7n ta7ya?

'How are you?'

tza7n ta7ya
how are you

2.6.2.3 PASSIVES

Passive derivation is discussed in section 2.4.1.2 (#36 - 39). So far four different passive suffixes have been identified, and each has a somewhat different function.

{-e:t} (37) forms the medio-passive. The action occurs without an agent. It should be noted here that all transitive verbs can drop the agent to express an unknown agent, without any further change in structure. The difference between a medio-passive formed with {-e:t}

and an agentless transitive verb is very slight.

Examples:

ma ttzuy 'he grabbed it' (transitive)

ma tzuy '"they" grabbed it' (agentless transitive)

ma tzye:t 'it was grabbed (by someone)' (medio-passive)

{-j} (38) forms a passive which can occur with an agent (expressed by the relational noun -u7n). If the agent is not used, it implies that there is no agent, not that there is an unknown agent. Examples:

ma ku7x tyu:pana 'he put it out' (transitive)

ma ku7x yu:pj 'it went out (by itself)' (passive)

ma ku7x yu:pj wu7na 'I put it out' (passive, agent)

{-njtz} (39) forms passives which can take a third person agent but no other agent. Again, the absence of a noun phrase indicating agent implies absence of an agent. Examples:

yu:panjtz 'it was put out (by itself)' (passive, no agent)

yu:panjtz q'a:q' tu7n xja:l 'the fire was put out by the person' (passive, agent)

These constructions are used by some people but not by others in the town. All, however, accept constructions with {-njtz} of the following type:

nach tk'a:njtz a7 'it's bad to drink water'

mi:b'an twa:7njtz 'it's not edible'

In these constructions the sentence containing the verb with -njtz is subordinated to a sentence consisting of a pronominal phrase, and is the subject of the phrase:

nach	tk'a:njtz
pronoun phrase	subordinated
it's bad	that water is drunk

-b'aj (36) forms passives which always occur with directionals and never take agents. Examples:

xi7 to:qb'aj tal tze:7

'the tree was cut'

xi7 to:qb'aj	tal	tzé:7
it was cut	small	tree

tzul q'ab'aj

'it is left there'

2.6.2.4 IMPERATIVES

Imperative formation is described in section 2.2.1, 2.5.1.1, and 2.5.1.2. The imperative verb usually occurs first in the sentence (although adverbials may precede it), and other changes are those noted in the formation of the verb phrase. The imperative occurs with a full person paradigm, although the second person forms are the most common. Examples:

Kyyo:ma ma:jan!

'Look for workers (you-all)!'

Ku:7txqaya ja7la!

'Go away for ever now!'

Chimok'e:kaxa kyja7w!

'Crouch down like this (you-all)!'

Chu:xhaq kyi:7ntz xb'u7qa je7y!

'Hurry and bring your rags (you-all)!'

2.6.3 SENTENCE LEVEL CLITICS

There are a number of enclitics with syntactic functions. They operate within phrases, within simple sentences, or within complex and compound sentences, and will be described here as a group. Some are related in both form and meaning to words or affixes; others are not. The enclitics are described according to the following format:

1. number, form
2. related words or affixes, if any
3. functions, glosses
4. examples

1) 1. x

2. a:x 'the same'

3. This enclitic has at least four functions, or there are four homophonous enclitics:

   a) Means 'the same' and occurs with relational nouns and the particle iky 'like this'.

   b) Means 'only' and occurs with numbers and the particles o7k and noq 'only'.

c) Means 'still' and occurs with the pronoun at 'there is', the negative particle nti7 'there isn't', and the particle kuk- (kukx 'still').

d) Means 'always' and occurs with negatives, several particles, and verbs.

4. Examples:

a) kyu7nxla xja:l 'by the same people'

kyu7nxla xja:l
by them the same person

ax ax7ikyx aja tna:chal at kyu:kalma

'also it's the same inconvenience with the men'

ax ax7ikyx aja tna:chal
also like this the same that badness

at kyu:kalma
there is with them men(noun classifier)

b) nimpatzan jun sye:ntx ne:7

'well, it's not much, only a hundred'

nimpatzan jun sye:ntx ne:7
well big one hundred only small

qama tz'ok tq'o:n ti:b' ju:nx xja:l

'if only one person will give'

qama tz'ok tq'o:n ti:b' ju:nx xja:l
if he will give in himself only one person

noqx kye:ka 'only for them'

noqx kye:ka
only for them

c) per atx ch'i:ntl taj

'but it still wants a little more'

per atx ch'i:ntl taj
but still there is a little more it wants

atx o:x ta:nka 'there are still three tanks'

atx o:x ta:nka
still there is three tank

nti7x kub' tuj kywitz nema:stl xja:l

'the rest of the people still did not accept it'

nti7x kub' tuj
still there is not it went down in it

kywitz nema:stl xja:l
their head the rest person

d) pera tzu:lx tu7n ju:n tb'a:nal

'but it always comes in good condition'

pera tzu:lx tu7n ju:n tb'a:nal
but it always comes by one its goodness

a:tzan i:lxna 'it's always necessary'

a:tzan i:lxna
well it is always necessary

jomajx kyaqi:l q'i:j

'always every day'

jomajx kyaqi:l q'i:j
always all day

2) 1. tl

2.

3. 'again, other'

4. Examples:

Nxi7 tk'antl txu:b'aj txqantl a7.

'The mother was drinking again another quantity of water.'

nxi7 tk'antl txu:b'aj txqantl
she was drinking again mother a lot again

a7
water

Nqe:xtzantla q'ama:l te: kye: qu:k'ala.

'And we went out again to tell the others.'

nqe:xtzantla q'ama:l te:
well we went out again to tell it

kye: qu:k'ala
them with us

O7ktzan ntza:j tchi: kyi7j xja:l ti7jaj ch'i:ntl.

'The people are afraid only because of another bit (of money).'

o7ktzan ntza:j tchi: kyi7j xja:l
well only it comes its fear to them person

ti7jaj ch'i:ntl
about it another little bit

b'ix ju:ntl wiq xaq

'and another type of rock'

b'ix ju:ntl wiq xąq
and another type rock

3) 1. jo

2. aj 'this, that'; jo:7 'yes, that's it'

3. Demonstrative, 'this, that'

4. Examples:

a:tzanjo 'this is it'

mya:7jo 'that's not it'

q'i:ntzajo 'bring that!'

ikyjo 'like that'

tuj xo:chjo 'in that well'

4) 1. ka

2.

3. Means 'but'. It is a sentence level conjunction. The Spanish pero has also been borrowed, but the two can never be used together.

4. Examples:

Ma chi:nxa aq'na:l b'ala mi:ka chin7u:la.

'I'm going to work, but maybe I won't come here.'

ma chi:nxa aq'na:l b'ala mi:ka chin7u:la
I will go to work maybe but no I arrive here

Noqax nimka jun aq'u:ntl ti7jaj.

'But there's so much work on this.'

noqax nimka jun aq'u:ntl ti7jaj
still but a lot one work about it

B'alq'aje:7 qanima:l tuj sesyo:n, nkub'katzan tuj qwitzma.

'They wavered in the meeting, but at last they accepted it.'

b'alq'aje:7 qanima:l tuj sesyo:n
they wavered those in it meeting

nkub'katzan tuj qwitzma
but it went down in it our head man

5) 1. tzan

2.

3. Means 'well, then'. This is a sentence level coordinator which maintains the flow between sentences.

4. Examples:

Ntza:j<u>tzan</u> nqoku7<u>tzan</u> te:na yo:lal tu:k'alma.

'And <u>then</u> we started, <u>well</u>, to talk with him.'

ntza:jtzan nqoku7tzan
well it was coming well we were going down

te:na yo:lal tu:k'alma
it is to talk with it man (classifier)

A:<u>tzan</u> nb'antl ti7j ja7la.

'Well, that's what is being arranged now.'

a:tzan nb'antl ti7j ja7la
well it is it is made again about it now

6) 1. taq

2.

3. Perfective; indicates that an action is complete when another action occurs. <u>Taq</u> occurs with separable aspects or with particles. The other clause in the sentence is dependent on the clause which contains <u>taq</u>.

5. Examples:

O:<u>taq</u> b'aj wa:7n xi q'o7n tk'a:7.

'He <u>had</u> eaten when they gave the drink.'

o:taq b'aj wa:7n xi q'o7n tk'a:7
he had eaten when it gave his drink

O:taq b'aj wa:7n ok ttzaj q'o7n tk'a:7.

'He will have eaten when they give the drink.'

o:taq b'aj wa:7n ok ttzaj q'o7n tk'a:7
he had eaten when it gives away his drink

Kyja7taq tojla:n xi q'amo7n ju:ntl aq'u:ntl te:.

'He was going to rest when they gave him another job.'

kyja7taq tojla:n xi q'amo7n ju:ntl
like this had rested it gave another

aq'u:ntl te:
work him

Ch'i:ntaq txi7 sajtz i:lan wi7ja.

'He had walked a little when they scolded me.'

ch'i:ntaq txi7 sajtz i:lan wi7ja
he had gone a little it scolded about me

7) 1. la

2.

3. Indicates doubt.

4. Examples:

Abe:r ma:xala.

'Who knows until when.'

abe:r ma:xala
who knows until when

Ma:7tzan po:n yi:n qochiwlajo ma:x qxo:la.

'Let us say that it has arrived among us.'

ma:7tzan po:n yi:n qochiwlajo
well now it arrived a little let us say that

ma:x qxo:la
until among us

Per o:tla tz'o:k tya:b'jàl tne:jal.

'But maybe it was damaged from the beginning.'

per o:tla tz'o:k tya:b'jal
but maybe it entered its illness animal

tne:jal
first

8) 1. wt and w(a)la

2.

3. These two enclitics indicate contrary to fact. The /t/ in wt probably comes from the perfective taq and indicates that the action would have happened in relation to another action. The wt therefore marks the 'if' clause in a conditional sentence. The la of w(a)la is the enclitic la which indicates doubt, and this form is used in the 'then' clause of a conditional sentence. Both forms occur in the conditional potential.

4. Examples:

O:taqwala chinb'aj wa:7na xhu:l noqawttzaj

kyma7n o:r.

'I would have been finished eating when they arrived if they had told me the time.'

o:taqwala chinb'aj wa:7na
I would have finished eating

xhu:l noqawt tzaj kyma7n o:r
when they arrived if only they said hour

Mawla chinwa:7na noqawt tzaj kyma7n o:r.

'I would have eaten if they.told me the time.'

mawla chinwa:7na noqawt tzaj kyma7n o:r
I would have eaten if only they said hour

Mawla aq'na:na nti7wt tkub' tto:qan tq'ab'a.

'You would have worked if you hadn't broken your hand.'

mawla aq'na:na nti7wt tkub' tto:qan
you would have worked if not you broke

tq'ab'a
your hand

Aj a:wt tzaj tma7na aj tne:jal.

'You could say the first part.'

aj a:wt tzaj tma7na aj tne:jal
that could you say that first

Ma:7tzan po:n yi:n qochiwlajo ma:x qxo:la.

'Let's say that it arrived among us.'

ma:7tzan po:n yi:n
well now it arrived a little

qochiwlajo ma:x qxo:la
let us say that until among us

9) 1. pa

2.

3. This enclitic has two functions:

a) Interrogative, used to indicate yes/no questions.

b) 'even'

4. Examples:

a) B'a7npala jun aq'u:ntl?

'Will the work be good?'

b'a7npala jun aq'u:ntl
good? one work

U:lpa? 'Did he arrive?'

Xja:lpa? 'Is it a person?'

b) Miky'lpa txi7 t-xe:wal ich' wu7na tuj xo:chjo.

'I didn't even perceive the odor of the mouse in that well.'

miky'lpa txi7 t-xe:wal ich' wu7na
not even it went its odor mouse by me

tuj xo:chjo
in it that well

A:lpatzan qa tky'i7ya mi:wttzan sati:7na.

'Well, if you don't even want it you shouln't have brought it.'

a:lpatzan qa tky'i7ya mi:wttzan
well even if you don't want well should not

sati:7na
you brought

10) 1. na

2.

3. Emphatic, affirmative.

4. Examples:

Ba:ya ma:7na tz'e:tz o:x naq'ati: bye:t te: sye:nt.

'Well, now, they did get three bills of a hundred.'

ba:ya ma:7na tz'e:tz o:x naq'ati:
good now it did get three those

bye:t te: sye:nt
bill of 100

I:lxna. 'Yes, it's always necessary.'

Atna. 'Yes, there is.'

Ma kub'na tutz'e:7. 'Yes, he sat down.'

11) 1. :7

2.

3. Emphatic. This lengthens the vowel and adds glottal stop to a word being emphasized.

4. Examples:

Ma:7 po:n tzi kyja:.

'Now it arrived at the house.'

ma:7 po:n tzi kyja:
now it arrived its entrance their house

O:7tzan txi7 maqu:tjal tjaq' tx'otx'.

'Well, now it was buried in the ground.'

o:7tzan txi7 maqu:tjal tjaq'
well now it was buried animal under it

tx'otx'
earth

Baqa ch'i:7n. 'It's scarcely a little.'

B'ala ja:7ka. 'Maybe yes.'

12) 1. Set A emphatics, preposed

2. Same forms as Set A person prefixes. The w allomorph of first person singular is always used.

3. Used on already possessed nouns to emphasize possession. Person enclitics are deleted, but the forms are understood as if they were present, so they only refer to first person exclusive or second person.

4. Examples:

wnja: 'my house'

ttja: 'your house'

qqja: 'our house (not yours)'

kylyja: 'you-all's house'

13) 1. Set A emphatics, postposed

2. Same forms as Set A person prefixes. The w allomorph of first person singular is always used.

3. These are used on nouns and verbs to emphasize the possessor, the agent, the patient, or subject. They are postposed to the stem immediately before the person enclitics, which are required. Therefore again only first person exclusive and second person can be emphasized in this way.

4. Examples:

Noun

nja:wa	'my house'
tja:ta	'your house'
qja:qa	'our house (not yours)'
kyja:kya	'you-all's house'

Transitive Verb, Agent Emphasis

ma ntze:q'awa	'I hit it'
ma ttze:q'ata	'you hit it'
ma qtze:q'aqa	'we hit it (not you)'
ma kytze:q'akya	'you-all hit it'

Transitive Verb, Patient Emphasis

ma chinttze:q'awa	'you hit me'
ma ntze:q'ata	'I hit you'
ma qottze:q'aqa	'you hit us'
ma chiqtze:q'akya	'we hit you-all'

Intransitive Verb, Subject Emphasis

ma chinb'e:twa	'I walked'
ma b'e:tta	'you walked'
ma qob'e:tqa	'we walked'
ma chib'e:tkya	'you-all walked'

14) 1. chaq

2. -chaq 'distributive' (see 2.4.3 #73).

3. This has been found so far with interrogatives, and apparently functions like the distributive.

4. Examples:

Ja:chaqtzantuma kb'el qe:7 ju:n?

'Where then will each be constructed?'

ja:chaqtzantuma kb'el qe:7 ju:n
well where each will be constructed one

A:x qo7ya ti:chaq tqal aq'u:ntl taj ti:chaq

tqal pa:lt?

'We're the same ones who do whatever work
and whatever error.'

a:x qo7ya ti:chaq tqal aq'u:ntl
the same we whatever what work

taj ti:chaq tqal pa:lt
it wants whatever what error

15) 1. ta

2.

3. Apparently another emphatic.

4. Examples:

Mati:jta nima:l xaq.

'The rock is very big.'

mati:jta nima:l xaq
very big big rock

Atta a7 po:n.

'The water did arrive.'

atta a7 po:n
there is water it arrived

Komo tb'a:nalta nima:l axi7n ta7 Liberta:.

'Because there's very good corn in La Libertad.'

komo tb'a:nalta nima:l axi7n ta7
like its goodness that corn it is

Liberta:
La Libertad

16) 1. ch

2. chi- 'say', intransitive verb.

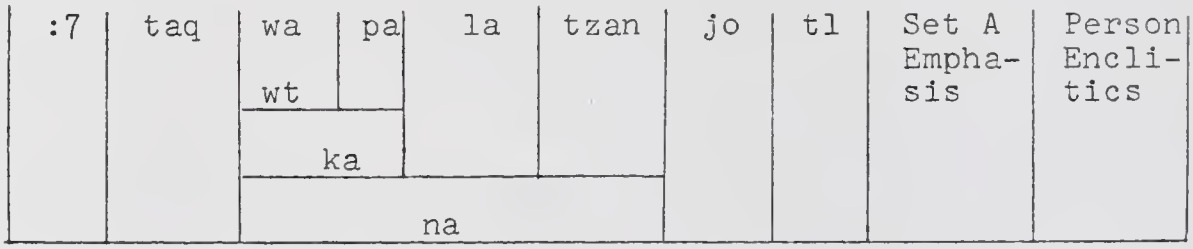
3. Quotative enclitic. Usually the full verb form is used, but the enclitic can be substituted, if the referent is third person singular.

4. Examples:

At jun xaqch. '"There's a rock," he says.'

B'a7nch. '"It's good," he says.'

The enclitics can combine. As far as has been determined, they combine according to the following order:



2.6.4 COMPOUND SENTENCES

Two or more simple sentences can be conjoined by one of the enclitics ka 'but' or tzan 'then, well' (2.6.3), or by a conjunctive particle (2.2.5.4) such as b'ix 'and', i: 'and', pera 'but', ento:ns 'then', pwe:s 'then, well', yajtzan 'and then', ax 'also', or sineke 'but rather'. The only change that occurs is that aspect may be deleted from one of the sentences if it is clear from context. Note that the connectors

are half Spanish loans (i:, pera, ento:ns, pwe:s, sineke). Examples:

Ento:nstzanla nb'aj nima:l tk'alo:n ti:b'jal,

b'ix nxi7 jak'u7njal ento:ns b'i7xla to:qjal.

'Then maybe it started to be tied up all by itself, and it was pulled, and then all at once it broke.'

nb'aj nima:l tk'alo:n ti:b'jal
it was finishing big one tying up itself animal

nxi7 jak'u7njal
it pulled away animal

b'i7xla to:qjal
all at once it broke animal

B'a7n chichitzan xja:l, pera a:xaxta pwaq.

'That's fine said the people then, but what's important is the money.'

b'a7n
it's good

chichi xja:l
said person

a:xaxta pwaq
what's important money

Pera ti: tz'okx qse7n komo ax mange:rax na:ch.

'But what are we going to do, because also the hose is no good.'

ti: tz'okx qse7n
what are we going to do

mange:rax na:ch
hose is bad

2.6.5 COMPLEX SENTENCES

Three of the principal ways in which subordinated clauses are indicated are 1) by the use of a verbal noun phrase, 2) by the substitution of Set A person markers for Set B person markers (2.2.1.1, 2.2.1.2), and 3) by the use of the subordinate aspects {x-} or {Ø} (2.2.1). These subordinate constructions are described here.

2.6.5.1 VERBAL NOUNS

One verb can be subordinated to another by use of a verbal noun. The independent verb is always an intransitive verb of motion or the intransitive verb te:n- 'be in a place'. The following subordinated verb is formed by the verbal suffix {-l} (2.4.2 #55). It must be followed by a noun phrase indicating patient. The first noun may be followed by a noun phrase for the subject; the agent is always deleted in the verbal noun phrase because it is the same as the subject of the intransitive verb. Adverbials, if any, accompany either clause. Other noun phrases headed by relational nouns can follow the verbal noun. Examples:

Nqu:l b'i:nchal tete:.
1 2 3

'We came to arrange it.'
1 2 3
verb verbal noun patient

Tne:jal ul a:j qo7ya awtorisa:7ral te: komite:
1 2 3 4 5

tuj Chna7jal.
6

'First we came to authorize the committee
1 3 2 4 5
time subject verb verbal noun patient

in Huehuetenango.'
6
locative

Nchiku7 te:n xja:l bela:ral te: jun we:ch.
1 2 3 4

'The people began to watch the fox.'
2 1 3 4
subject verb verbal noun patient

Ncho:k te:n ta:l o:q'al ti7j.
1 2 3 4

'The offspring started to cry about her.'
2 1 3 4
subject verb verbal noun topic

2.6.5.2 SUBORDINATION WITH SET A PERSON MARKERS

When one clause is subordinated to another by use of Set A person markers, then these markers take the place of Set B (patient of the transitive verb or subject of the intransitive verb) in the base sentence. Some of the conditioning factors which require this type of subordination are quite clear; others are not yet well understood.

1) Set A is always substituted for Set B in a clause introduced by the relational noun -u7n, with the meaning 'in order to; so that'. Examples:

Ya: nku7tzan qxi:7mana ti7j tu7n te:tz o:nb'il.

'And we were thinking about it so that help would come.'

ya: nku7tzan qxi:7mana ti7j tu7n
now we were thinking about it so that

te:tz o:nb'il
it would arrive help

Ti:tzan tqal mo:da kb'ante:l qu7n tu7n tjaqe:t xaq?

'What are we going to do in order to open the rock?'

ti:tzan tqal mo:da kb'ante:l qu7n tu7n
well what what manner will do by us so that

tjaqe:t xaq
it is opened rock

Nkub' tq'a:q' xja:l tu7n tmeq't twa:7.

'The person was making a fire so that he could heat his tortillas.'

nkub' tq'a:q' xja:l tu7n
it was going down his fire person so that

tmeq't twa:7
be heated his tortilla

2) Set A subordination always occurs with the particles ok 'when, potential' and aj 'when, nonpotential', and sometimes with the particle kwanto 'when'. These particles can be deleted. Examples:

Ok tku7x kyawa7n xja:l kjo7n b'i7x nxi7 che:naq' ti7j.

'When the people plant the cornfield at the same time beans are put in.'

ok tku7x kyawa7n xja:l kjo7n
when they plant down person cornfield

b'i7x nxi7 che:naq' ti7j
all at once it is going bean about it

O tza:laj xja:l ti7j tpa: aj tkane:t pri:mx.

'The person was happy about his bag when it was found soon.'

o tza:laj xja:l ti7j tpa: aj
he was happy person about it his bag when

tkane:t pri:mx
it was found early

Kwanto tkane:t sa:nt te: i7tzal...

'When the patron saint of Ixtahuacán was found...'

kwanto tkane:t sa:nt te: i7tzal
when it was found patron saint of Ixtahuacán

Nchi7o:q' tpo:n kytxu:7.

'They were crying when their mother arrived.'

nchi7o:q' tpo:n kytxu:7
they were crying when she arrived their mother

3) Subordination by Set A affixes always occurs after affect words or affect verbs. Examples:

Palala:n tiky' nima:l ich'.

'The big rat passed by floating.'

palala:n tiky' nima:l ich'
floating it went by big one rat

Malala:n t-xi7 tze:7 ja7la.

'Now the tree went swelling.'

malala:n t-xi7 tze:7 ja7la
swelling it went tree now

Ch'uq te:l t-xa:jb'a.

'Ch'uq! he took off his shoes.'

ch'uq te:l t-xa:jb'a
ch'uq! it went out his shoe

Xumaja te:x b'a:q kyu7n.

'Xum! they threw the bones!'

xumaja te:x b'a:q kyu7n
xum! it went out bone by them

4) The particles b'a:ka 'little by little', qit 'at times', and i: 'that' always require Set A subordination.

Examples:

Noq qit tja:tz nima:l a7.

'Only at times did the water come out.'

noq qit tja:tz nima:l a7
only at times it went up away big one water

B'ix baqa qit qojla:n.

'And at times we hardly rested.'

b'ix baqa qit qojla:n
and hardly at times we rested

B'a:katzan twe7 ju:n tajla:l qu7na.

'Little by little we got up the quantity.'

b'a:katzan twe7 ju:n tajla:l qu7na
well little by little it stood one quantity by us

B'a:ka tjapan te: wi:nqan la:j.

'Little by little it rose to thirty.'

b'a:ka tjapan te: wi:nqan la:j
little by little it rose to it twenty ten

I: tja:tz mi:j mange:ra i: t-xi7 tzi kyja:qaj.

'Half the hose has to be taken up so that it goes to their houses.'

i: tja:tz mi:j mange:ra i: t-xi7
that it goes up half hose that it goes

tzi kyja:qaj
its entrance those their houses

5) The negative particle na7x 'still not' always requires Set A subordination. Examples:

Na7xtzan tex qlaq'o7n k'uxb'ila noqtzan.

'We still haven't bought the tool.'

na7xtzan tex qlaq'o7n k'uxb'ila noqtzan
well still not we bought out tool well only

Na7x tpo:n a7.

'The water has still not arrived.'

na7x tpo:n a7
still not it arrived water

6) Relative clauses frequently take Set A subordination, but also are subordinated by the subordinate aspects. The differences in distribution are not well understood. Examples:

jun serkya:n to:kx lu:7.

'a serpent that is in here'

jun serkya:n to:kx lu:7
one serpent that is in here

B'a7ntzan qxi7 lol tete:.

'It is good that we see it.'

b'a7ntzan qxi7 lol tete:
well good that we go to see it

Chep To:ntz tjax ti:b'aj qja:y7

'José Ordóñez who is above our house'

chep to:ntz tjax ti:b'aj qja:y7
José Ordóñez he goes up above it our house

chq'ala:j toktz tumal kyja: ti: Lo:xh Lip

'the plain where the house of Alonso Felipe is'

chq'ala:j toktz tumal kyja: ti:
plain it enters where their house big

lo:xh lip
Alonso Felipe

masa:t kyki:nx xhli:kyj

'the deer that they saw standing'

masa:t kyki:nx xhli:kyj
deer that they saw standing

7) The particles kyja7 'like this', asta 'up to, until', and ma:x 'up to, until' sometimes take Set A subordination, but also occur without subordination or with the subordinate aspects. The circumstances under which they require Set A subordination are not clear. Examples:

asta tiky'al ka:nan tzi a7

'until it arrived at the edge of the sea'

asta tiky'al ka:nan tzi a7
until it arrived passing its entrance water

ma:x tokx ma: ti:b' pwe:nt tuj kyqa7

'it is up there above the bridge at the hot springs'

ma:x tokx ma: ti:b' pwe:nt tuj
until it enters up to above it bridge in it

kyqa7
hot water

kyja7tzan tte:nx

'it's like that'

kyja7tzan tte:nx
well like that it is

2.6.5.3 SUBORDINATION WITH SUBORDINATE ASPECTS

Another type of subordination is marked by use of the aspects {x-} 'near past' or {Ø} 'past' in the subordinate clause. While it is easy to identify the subordinate markers and it is clear that subordination is occurring, the conditioning factors of this type of subordination are not clear. Almost all factors present with these aspects can also occur with subordination by Set A prefixes, or without subordination. Set A subordination never occurs at the same time with these aspects. It should be noted that this type of subordination only occurs with the near past and past aspects, so that the same sentences in the progressive or potential will not be subordinated.

1) The most common use of the subordinate aspects is in relative clauses. The differences between these and relative clauses with Set A subordination are not clear. Examples:

xja:l sakyi:7n

'the people that they brought'

xja:l sakyi:7n
person that they brought

A:tzanjo _etz ti:7nma.

'This is that which he brought'

a:tzanjo etz ti:7nma
this is that which he brought man

tma:cht _jaw ti:7n

'the machete which he lifted'

tma:cht jaw ti:7n
his machete which he lifted

kab' sama:n xqote:n ma: elnax

'the two weeks when we were there'

kab' sama:n xqote:n ma: elnax
two week when we are up to west

noq ch'inne:7 _e:l

'only a little that it opened'

noq ch'inne:7 e:l
only a little small that it went out

kab' katekyi:sta _i7ok lape:7 qi7ja

'two catechists who followed us'

kab' katekyi:sta i7ok lape:7 qi7ja
two catechists who followed about us

nim xkypi:k

'it is a lot that they damaged'

nim xkypi:k
a lot that they damaged

2) Interrogative particles sometimes take the subordinate aspects, although they also take nonsubordinate constructions (see 2.6.2.2). Examples:

Ja sa:ja qchi7 tu7na?

'Where did you get our meat?'

ja a sa:ja qchi7 tu7na
where it returned our meat by you

Porke xhib'antky?

'How did they prepare?'

porke xhib'antky
how did they make it

3) The negative miti7 or nti7 can be followed by these aspects, but not always (see 2.6.2.1). Example:

Miti7 xhikumpli:7ranq'a.

'They did not complete it.'

miti7 xhikumpli:7ranq'a
no they completed it young man

4) Other examples:

asta a:xqaq'a xhikyim

'until they themselves died'

asta a:xqaq'a xhikyim
until the same ones they died

Ma:taq nchimb'e:ta sok nki:n wi:b'a tu:k' jun xja:l.

'I was walking when I met a person.'

ma:taq nchimb'e:ta sok nki:n wi:b'a tu:k'
I had walked when I saw myself with him

jun xja:l
one person

Kwanto so:kl tzlu:7 xku7 kyiyiji7n.

'When he arrived there they took care of him.'

kwanto so:kl tzlu:7 xku7 kyiyiji7n
when he went in there they took care of

ikytzan xb'aj tma7na

'like that which you just said'

ikytzan xb'aj tma7na
well like that you said

Pwe:s saj wi:7na.

'Well, I brought it.'

pwe:s saj wi:7na
well I brought it

To:ns xhe:ltl ja7la.

''Then they went now.'

to:ns xhe:tlt ja7la
well they went again now

3. VERB SEMANTICS

Verbal semantic categories as revealed through directional use are important to an understanding of how Mam works. The structure of the verb phrase with and without directionals was described in section 2.5.1; what remains to be done is an analysis of how directionals are used and what is their relation to verb semantics.

Most transitive verbs in Mam almost require directionals. While theoretically possible to use these verbs without a directional, the native speaker much prefers to use one, and even has difficulty accepting forms without directionals for some verbs. Therefore in eliciting a finite transitive verb, the form given almost always includes a directional. If the form is requested without a directional, the native speaker invariably responds with an intransitive rather than transitive form. With repeated eliciting it appears that each verb chooses a single preferred directional for the finite citation form, and that there is general consensus among speakers as to which directional should be used for this form. The specific directional chosen by each verb depends on semantics; it agrees with the basic meaning of the verb. Other

directionals may be used with the verb and will affect the meaning in some way. Not all verbs can take all directionals; the particular directionals which can go with any verb are also dictated by verb semantics.

An example of a verb with each of the twelve simple directionals and eleven compound directionals follows. The verb stem is i:7n- 'bring/take'.

ma txi wi:7na	'I took it'
ma tzaj wi:7na	'I brought it'
ma tzul wi:7na	'I brought it here'
ma pon wi:7na	'I took it there'
ma kub' wi:7na	'I lowered it from someone's back'
ma ku7x wi:7na	'I took it down'
ma ku7tz wi:7na	'I brought it down'
ma jaw wi:7na	'I lifted it on something'
ma jax wi:7na	'I took it up'
ma jatz wi:7na	'I brought it up'
ma tz'el wi:7na	'I took it away from something'
ma tz'ex wi:7na	'I took it out'
ma tz'etz wi:7na	'I brought it out'
ma tz'ok wi:7na	'I took it east'
ma tz'okx wi:7na	'I took it inside'
ma tz'oktz wi:7na	'I brought it inside'
ma kyaj wi:7na	'I detained it'
ma tz'aj wi:7na	'I took it on my return'
ma tz'ajtz wi:7na	'I brought it on my return'

ma tziky' wi:7na	'I passed by bringing it'
ma tziky'x wi:7na	'I took it to the left'
ma tziky'tz wi:7na	'I brought it from the left'
ma b'aj wi:7na	'I took, brought, or remained with everything'

There are three ways of looking at the problem of analyzing the semantics of verbs and directionals: 1) an examination of the semantic extensions of directionals as they are used with different verbs, 2) an analysis of the semantic class of each verb through the directional it takes in the citation form, and 3) an analysis of the distribution of occurrence of the different directionals with the different verbs. The analysis which follows is based on 300 transitive verbs which were elicited with all possible directionals.

3.1 SEMANTIC EXTENSIONS OF DIRECTIONALS

An examination of each directional as it is used with different verbs shows that the motion referred to by the directional can be of various types. It can refer to the motion made with emphasis on the agent, the patient, the instrument, or even some abstract participant. This depends on the particular verb and the context. Some directionals also have extended meaning beyond the basic direction they generally describe.

Xi has the basic meaning of motion away from a

point (generally the speaker) but also is used in the very general sense of 'go and do something', which of course derives directly from the related intransitive verb. In this more general sense xi indicates incipience or intent and is one of the most neutral directionals with regard to actually describing direction. It is one of the most frequently used elements, and can occur with a number of verbs which do not permit other directionals. B'aj, which is the only member of the class which does not refer specifically to direction, is almost equally general in occurrence.

El indicates motion toward the west in addition to motion outward, just as ok indicates motion toward the east and motion inward. This is related to the use of the verbs e:l and o:k for sunset and sunrise respectively (the exit and entrance of the sun).

Aj basically means 'return from here' but also can indicate motion behind or to the back. Ajtz 'return from there' is also used for repeated action. If aj means starting there and then returning to there, and the addition of /-tz/ adds the element 'from there to here', then we have an action that began there, returned there, and then returned here; that is, it was repeated.

Kyaj in its sense of 'leave here' includes the notion of completive; something is left behind and for that the action must be complete. B'aj is another type

of completive in that it generally refers to the performance of the action on everything.

Iky'x 'pass to the other side' also indicates motion from right to left, while iky'tz 'pass to this side' indicates motion from left to right. It can be assumed from this that the right side, which is considered the strong side, is also thought of as being closer to the person, so 'toward' indicates to the right side while 'away' indicates to the left.

It should be noted here that calling this class of verbal auxiliaries directionals implies that they are analytically one semantic class and furthermore that they have something to do with movement and direction of movement. Formally the auxiliaries are one class--they are all derived from intransitive verbs, behave similarly in relation to the verb phrase, and fill the same position in the verb phrase. It might be argued that kyaj 'remaining' and b'aj 'complete' do not indicate movement and that the analysis of the directionals as a class is faulty, but in fact these two directionals are in accord with the semantic characteristics of the class. Kyaj 'remaining' can be viewed as the absence of movement, and b'aj 'complete' as the cessation of movement. The fact that they are formally like other directionals and are identified as members of the class by Mam speakers adds weight to this interpretation.

3.2 CITATION FORM DIRECTIONALS

An analysis of which directional is used by each verb for the finite citation form reveals categories of verbs based on the semantic content of associated movement. Because directionals are stylistically almost mandatory with transitive verbs, it seems that movement may be the most important factor in the semantic organization of verbs in Mam. The discussion which follows points out some of the groups of verbs of similar semantic content which agree in their choice of directional.

The directionals which are most frequently used in the citation form are xi 'away', kub' 'down', jaw 'up', el 'out', ok 'in, and b'aj 'complete'. Xi and b'aj are the most general of the directionals, as noted previously, and account for over one third of the citation forms analyzed. The other four frequently cited directionals account for most of the rest of the forms. It is interesting to note that these four directionals correspond to the four cardinal directions of the ancient Mayans: up, down, east, and west. Mam apparently classifies its verbs as being either general or specific with relation to direction of movement, and then divides the verbs with specific directions according to the four cardinal directions of the Mayan system.

There are several directionals which are not

listed as the citation form for any of the verbs analyzed: ul, pon, and iky'tz. Others have only one or two examples, such as iky', iky'x, aj, ajtz, etz, jax, and oktz. The remaining tzaj, ku7x, ku7tz, jatz, ex, okx, and kyaj have a number of examples each.

Xi 'away' and b'aj 'complete' as the most general of the directionals are cited for verbs that are not strongly associated with any direction or for verbs that are themselves so general as to be equally associated with nearly all directions. Practically the only cases in elicitation where choice of a directional for the citation form was not clearcut was with these verbs; the native speaker sometimes varied between xi and b'aj. Examples of verbs which are not strongly associated with any direction are su7yat 'fall in love', xpu7rat 'bubble', and tza:k'at 'laugh'. Examples of verbs which are associated with all or most directions are q'i:t 'take/bring', q'o:t 'give', and nuk'e:t 'arrange in order'.

It is suggested here that the prevalence of the use of xi and b'aj in the citation forms is due to their functions in indicating incipience or completion of the action, and that these functions set them apart from the other directionals. On one level they function like other directionals; on another level they are constituents which apply to all verbs without

regard to movement. Therefore those verbs which use xi or b'aj in the citation form are verbs which are not strongly associated with a particular directional which would take precedence over the concepts of incipience or completion. Because xi and b'aj are semantically unmarked with regard to direction when they are used as incipience or completion, they are easily interchanged, which led to cases of indecision for the citation form directional. This did not happen with any other directionals. Xi and b'aj are therefore base constituents which can be superceded by more specific directionals.

It is possible to make some general statements about those verbs which semantically are closely associated with a particular direction. In many cases a number of different verbs which express closely related actions all choose the same directional in the citation form, thereby underlining the systematic nature of the choices. The identification of such a subcategory serves to isolate the semantic factor common to its members which is, in essence, a distinctive feature of verbal semantic organization. The categories revealed by each directional will now be examined.

Tzaj 'toward' is used with verbs that express a direct action toward the speaker, such as xo:kat 'pull with a hook', tz'u:lat 'embrace', or sky'e:rat 'stripe'.

Tzaj is also used with verbs that produce a resultant action toward the speaker, such as txake:t, 'call' (the person called moves toward the speaker), jaye:t 'look for' (that found is near the speaker), or si7wat 'gather firewood' (the firewood is brought home).

Kub' 'down' and its compounds ku7x and ku7tz are used with verbs which as is expected indicate action performed with a downward motion or resulting in downward motion. Among these are many verbs which indicate cutting, breaking, or deforming; filling; and fighting or using violence. Other examples include yu:pat 'put out fire, light', mu:q'at 'cover', awa:t 'plant', and pitxe:t 'pick fruit'.

Jaw 'up' and its compounds jax and jatz are used with verbs that indicate action usually performed with an upward motion. Included are various verbs for looking for objects on or under the ground, for pulling up plants or digging, for cleaning or wiping, and for carrying babies without a carrying cloth. Other examples are qa:tat 'belch', sch'i:l 'read', and pule:t 'dip up water'.

El 'out' and the related ex and etz are used with a large number of verbs which all indicate some form of stripping or removing the outer covering of an object. This includes verbs for shelling corn, shucking corn, defoliating, stripping sugarcane, undressing, picking bananas or corn from the stalk,

stripping bark or wood, peeling bananas or animal hide, etc. In all cases an outer covering is removed or moved outward from the object so that the inner core shows. Other verbs which choose these directionals are verbs for stretching, pushing, and grinding, all of which involve motion outward. Further examples are ch'exo:l 'lend', k'a:yat 'sell', laq'e:t 'buy', ch'u:l 'nurse', and tz'ub'at 'kiss'. In the case of 'buy' the object moves outward from its source toward the agent, while with 'sell' the object moves outward from its source away from the agent.

A large and interesting class of verbs choose ok 'in' and the related okx and oktz in the citation form and indicate actions of various sorts performed on the body. These include touch, punch or beat someone, pinch, tickle, cure, bewitch, give the evil eye, frighten, anoint, blacken the face, dress, console, and tease. The emphasis is on the object on which the action is performed rather than the agent of the action, and it is interesting to note that supernatural, mental, and physical actions are grouped similarly. Other verbs which choose these directionals are verbs for tying up and for burning something. Further examples are q'ajtze:t 'knock on door', chme:t 'gather', kame:t 'receive', and naje:t 'occupy a house'.

Verbs which choose kyaj 'remain' in the citation

form have no outstanding semantic similarities. They are xalb'e:t 'step over something', ju:lat 'burn for fun', lame:t 'close door', sch'o7pat 'whinny', and qe7e:t 'accept responsibility'. Aj 'returning from here' is only chosen by qi7pat 'loosen', and ajtz 'returning from there' by qi7pat 'repent'. Iky' 'passing' and iky'x 'passing to the other side' are chosen by q'e7lat 'cross over', q'eb'at 'cross over', and yuch'pe:t 'fell'. The relation of these last to the semantic content of the verb is clear.

The preceding summary shows clearly that the semantic content of a verb in Mam dictates the choice of directional for the finite citation form of the verb. Those directionals chosen do not interfere with the basic semantic content; they complement or repeat it. In that sense they are redundant, but they serve to illuminate the semantic organization of the verbs. That organization is one which is obviously peculiar to Mam and not at all predictable from the point of view of another language. Categories, once noted and revealed by the choice of directionals, are coherent. The broadest categories defined are apparently three: 1) those verbs which are not associated with direction, 2) those verbs which are associated with almost all directions, and 3) those verbs which are associated strongly with a particular direction. Most of the last class are associated with one of the four

cardinal directions: up, down, east, and west.

3.3 DIRECTIONAL DISTRIBUTION

The third aspect of analyzing verb semantics through directional use is to examine the distribution of the directionals with the different verbs. This will not be discussed here is detail, but certain avenues of inquiry can be indicated. A rapid study of the data shows that certain broad categories can be isolated by the distribution of the directionals. There are verbs which combine with almost all directionals; these are generally verbs of motion, unspecific, and intrinsically transitive. Other verbs take few directionals and seem to be of two types; either very specific verbs of motion or verbs which do not involve motion and are not intrinsically transitive. A study of this is valuable in terms of the grammatical and semantic conditions of transitivity in Mam. It is also probable that a careful study can reveal many more subcategories which in conjunction with categories revealed by the analysis of the citation form directionals may provide more information about covert categories of Mam verbs.

4. GRAMMATICAL CATEGORIES

This chapter is an overview of some of the major grammatical categories found in Mam. These categories depend on organizational principles and themes which are specific to the language, and crosscut the "levels" of grammatical analysis. They are therefore discussed entirely apart from that organization. Material from various parts of the grammar is here brought together in order to expose structural principles which are defined by the language and which are the basis for expression in the language. The primary reason for a separate discussion of grammatical categories is that they are not necessarily obvious in the analysis which has been presented thus far. Since the expression of a grammatical category is found scattered in relevant sections throughout the grammar, both the analysis of the categories and the presentation of evidence for that analysis must be made apart from a traditional structuring of the grammar.

The categories to be discussed below are organized according to verbal categories, including time, direction, and transitivity; person relationships, including person marking, case and location, and body and human

metaphor; description; and emphasis.

4.1 VERBAL CATEGORIES

4.1.1 TIME

Time is indicated in various ways, among them by the aspects (2.2.1), mode suffixes (2.2.1), temporal particles (2.2.5.6), some other particles (2.2.5), and by derived adverbials (2.4.5). Of these only the particles and adverbials directly specify time, but all have something to do with time in addition to other functions.

Elements which indicate time (sometimes in addition to other functions) are:

Aspects:

o	'past'
Ø-	'past subordinate'
ma	'near past'
x-	'near past subordinate'
n-	'progressive'
ok	'potential'

Mode:

-a7, -l	'potential'

Temporals:

ja7la	'now'
a:txax	'a long time ago'

ojtxa	'before'
e:w	'yesterday'
ma:ky'	'just now'
k'itxqe:	'a little while ago'
ya:	'now'
nchi7j	'tomorrow'
ch'ix	'right now, just then'
b'isan	'soon'
yajxa	'later'
qa:7la	'afternoon'
pri:m	'early, morning'
na:j	'soon'
kukx	'still'
kuxi7	'every little while'
despwe:s	'after'
al pi:n	'at last'
jomajx	'always'

Negatives:

nti7	'it isn't'
mi:7n	'no'

Adverbials: (time in the future, time in the past)

ka:7j	'in two days'
oxj	'in three days'
koj	'in four days'
qu:b'x	'in a week'
kyajlo:j	'in two weeks'

wi:nq'aj	'in three weeks'
jnab'	'in a year'
kob'ab'	'in two years'
oxab'	'in three years'
kab'aje:	'day before yesterday'
oxoje:	'three days ago'
qub'xe:	'a week ago'
kyajloje:	'two weeks ago'
winq'aje:	'three weeks ago'
jna:b'a	'a year ago'
kob'a:ba'	'two years ago'
oxa:b'a	'three years ago'

Subordinators:

aj	'when (nonpotential)'
ok	'when (potential)

Because either mode or aspect is obligatory in any transitive or intransitive sentence (2.6.1), it is postulated that time is a basic sentence constituent. Linking sentences do not have mode or aspect, but time nevertheless is a constituent in these sentences. Without further marking, a linking sentence refers to the indefinite present, for example:

At jun wo:7.

'There is a toad.'

The addition of an adverbial phrase may clarify the time involved, for example:

At jun wo:7 ojtxa.

'There was a toad before.'

Or, the linking sentence takes its time from the context of sentences which go before or after (or the entire narrative context), for example:

At jun xja:l jun el xi7. 'There was a person who went.'

at jun xja:l jun el xi7

there is a person one time went

In this case the time of at 'there is' in the first clause is determined by jun el 'one time' and Ø aspect (past subordinate) in the second clause.

The indefinite present which is the unmarked time of a linking sentence is also the unmarked time in a verbal sentence with n- aspect (progressive). Example:

npo:n a7 'the water is arriving there'

npo:n a7

is arriving there water

As with linking sentences, sentences with n- aspect are further clarified by the addition of adverbials or by context. Examples:

ya: npo:n a7 'the water was arriving there'

ya: npo:n a7

now is arriving there water

A:tzan ok nb'i7na kuxi7 nja:w nima:l.

'According to what I heard, every little while it broke.'

a:tzan ok nb'i7na
this is what I heard

kuxi7 nja:w nima:l
every little while it is going up big one

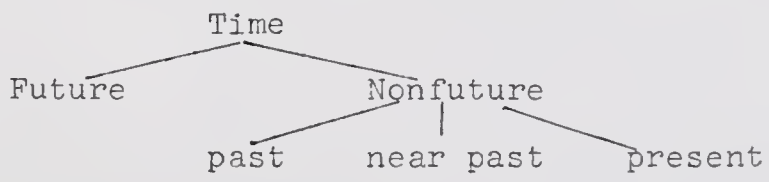
In this example time in the last clause is governed by Ø aspect (past subordinate) in the second clause.

A review of the time indicators helps analyze the system:

Time	Aspects	Mode	Particles	
past	o, Ø-		a:txax, ojtxa, e:w	
near past	ma, x-		k'itxqe:, ma:ky'	} ya:
present	n-		ja7la	} ya:
future	ok	-a7, -l	nchi7j	

Time	Subordinates	Negatives	Adverbs	Others
past	} aj	} nti7	time in past	
near past	} aj	} nti7		
present	} aj	} nti7		unmarked linkers
future	ok	mi:7n	time in future	

Other temporals can be used in any time to add specificity. Looking at mode, the subordinators, and the negatives, a principal division can be made between future and nonfuture. Nonfuture time is further divided into past, near past, and present (the unmarked category).



Note that the imperative mode is outside the time system.

Thus although time is not specifically marked, it is present in various ways in all sentences, and therefore must be considered a basic constituent.

4.1.2 DIRECTION

Direction of movement is indicated by the directional verbal auxiliaries (2.5.1; 3), by locative particles (2.2.5.5), and by the derived adverbials formed with -nax (2.4.5 #82). Enough has been said about the verbal directionals in Chapter 3 to show how powerful they are. The directionals either operate in the verb phrase, as has been described, or can operate in adverbial phrases through addition of the suffix -nax. Examples:

Ktza:jal a7 wu7na ma:x jawnax.

'I will bring the water up there.'

ktza:jal a7 wu7na ma:x jawnax
will bring water by me up to there up

Ikytzan te:nj qe:y7 ma: elnax.

'Like that we are there to the west.'

ikytzan te:nj qe:y7 ma: elnax
like that it is us up·to there west

Direction of movement is also indicated by the locative particles chi:7w 'there', tzlu:7 'here', jlaj 'on the other side', lu:7 'it's here', ma:x 'up to, over there', and asta 'up to'. The only Spanish borrowing among these is asta 'up to', which is also

used in the temporal sense of 'until'. The importance of the directionals and the other ways in which direction of movement can be expressed make this a significant grammatical category in Mam. Location of objects is a separate category which will be discussed in 4.2.2.

4.1.3 TRANSITIVITY

The often frustrating behavior of transitive verbs suggests that there is more to transitivity in Mam than is immediately obvious. It is clear that the division of verbs into transitive and intransitive is maintained at all levels, from roots (2.3.1), to stems (2.4.1), to words (2.2.1), to the phrase (2.5.1), and finally the sentence (2.6.1.2; 2.6.1.3). Transitive verbs, however, are almost never used without directionals. Eliciting a simple transitive verb is very difficult, and it is usually not acceptable to use one in a sentence. The insistence on directionals with transitive verbs is useful in making a semantic analysis of the verbs, and it has been suggested (3.3) that there are "degrees" of transitivity which can be analyzed through directional use.

The only verbs which have been found in texts as simple transitives are:

aj-	'want'
il-	'see'
ky'i7-	'not want'

While there are other transitive verbs that can occur without directionals (although not many), they rarely do.

There are also a number of transitive roots or stems which only occur as derived intransitives with -n (#32) or passives with -e:t (#37). Examples:

kane:t	'be found'
a:nq'an	'live'
ajb'ła:nan	'use'
ju:kan	'burn'
juk'e:t	'be played (on the marimba)'

Almost all transitives which occur with directionals can also occur as intransitives with -n or passives with -e:t. These forms usually do not have directionals, although they can. It is curious that the intransitive forms with -n can always express a patient or agent, or both. The patient or agent can be indicated by a noun phrase following the verb, but only if there is no confusion as to reference (since the verb only marks one person). To clarify person reference relational noun phrases are used to indicate the agent or patient. -u7n is used for the agent; -e: or -i7j for the patient. Examples:

nchik'a:n	a7	'They are drinking water.'
they are drinking	water patient (noun)	

nchiyo:lan xja:l 'The people are talking.'

they are talking person
agent
(noun)

ma chitzyu:n xi:naq che:j 'The men caught the horses.'

they caught man horse
agent patient
(noun) (noun)

ky'ixk'aj q'i:n kyu7n swe7j 'It was damaged by the man.'

it is damaged it gets by them man
agent
(relational
noun phrase)

ma:7 chinimo:n te: 'Now they pushed it.'

now they pushed it
patient
(relational
noun phrase)

ky'aq chicho:n qi7j 'The fleas eat us.'

flea they eat us
agent patient
(noun) (relational
noun phrase)

The fact that intransitivized transitive verbs can still have both an agent and patient would suggest that the underlying transitive nature of the root or stem still predominates in the derived form. Verbs which have intransitive roots can also be used transitively merely by adding a relational noun phrase for the agent or patient. Examples:

o kub' 'It went down.'

twi:xh o kub' te: ich' 'His cat killed mice.'

his cat it went down at it mouse
agent patient

ktza:jal a7 'The water will come.'

ktza:jal a7 wu7na 'I will bring water.'

it will come water by me
subject agent

no:k 'It is coming in.'

no:k ju:n tne:jal chemb'il qu7na 'We had the
it is coming in one first meeting by us first
subject agent meeting.'

Transitivity, then, seems to depend more on the person constituents than on the form of the verb. It also depends on verb semantics, as the study of directional use suggests. Directionals are almost mandatory with transitive verbs, and many transitive verbs occur with many of the possible directionals. Others, however, occur with very few directionals. Some of these are very specific verbs of motion and therefore obliged to occur with certain directionals. Others, however, apparently do not occur with many directionals because they are not semantically transitive (although formally they are) and therefore do not have the flexibility with regard to movement that other transitives have, or do not occur transitively very often. Examples:

wa:j- 'laugh' (only occurs with xi 'away', ok 'in', and okx 'in away')

xo:- 'obey' (only occurs with xi 'away', ex 'out away', ok 'in', and b'aj 'complete')

qi7p- 'repent' (only occurs with xi 'incipient' and b'aj 'complete')

q'aq- 'withstand pain' (only occurs with xi 'incipient', kub' 'down', and b'aj 'complete')

Those transitive roots and stems which never occur transitively are unable to do so because semantically they do not belong to the class..

There seem, then, to be verbs which are intransitive, but may at times be used with both agent and patient, which always involves a change in the semantics. There are also verbs which are transitive and can maintain their semantic transitivity even when made intransitive by derivation--they need only occur with agent and patient to assert that transitivity. Finally, there are verbs which although formally transitive are not semantically transitive and are either never used transitively, or are sometimes used transitively, but only with a very limited set of directionals. The semantic organization of transitivity thus does not parallel the grammatical organization, although there is considerable overlap between the two.

4.2 PERSON RELATIONSHIPS

4.2.1 PERSON MARKING

As has been shown in 2.2.1, Mam person prefixes, both Set A and Set B, mark presence and absence of first person singular and plural, while the person

enclitics mark presence and absence of second person singular and plural, and third person is the unmarked category. Set A is used for the agent of transitive verbs, the possessor of nouns, and also replaces Set B in certain subordinate constructions (2.6.5.2). Set B, on the other hand, is used for the patient of transitive verbs, the subject of intransitive verbs, and the subject of pronouns (2.2.2.5). Thus the two sets are in complementary distribution. The prefixes used in combination with the person enclitics yield seven distinct persons: first, second, and third singular; first plural exclusive and inclusive; and second and third plural.

There is additional evidence that the differential marking of the first, second, and third persons is of importance in the grammatical organization of person relationships. Although seven person are distinguished, the components are not equally marked. First person is marked strongly by prefixes, second person more weakly by enclitics, and third person is unmarked. Only in combination does the complete system emerge. Furthermore, there are situations in which the complete system does not operate. Emphasis by preposing or postposing Set A person markers (2.6.3) is only possible for four of the seven persons: first and second singular, first plural exclusive,

and second plural. This is because in the case of preposed Set A emphatics the person enclitics are dropped but understood as if present, while with the postposed emphatics the person enclitics are obligatory. Therefore marking of both first and second persons is obligatory with the emphatics and only four persons are distinguished. Example: (ja: 'house')

Preposed	Postposed	Gloss
wɾja:	nja:wa	'my house'
ttja:	tja:ta	'your house'
qqja:	qja:qa	'our house'
kykyja:	kyja:kya	'you-all's house'

Furthermore, as was seen in 2.2.1.1, complete agent and patient incorporation in transitive verbs is impossible because of the limitation imposed by having only one enclitic to refer to person, while two different prefixes indicate person. Therefore if the agent is first person exclusive (requiring an enclitic) and the patient is non-first person, it is unclear whether the patient is second person (requiring an enclitic) or third person (no enclitic). Also, those verbs which do not have enclitics cannot have patients that do have enclitics, because the enclitic refers primarily to the agent, and only secondarily to the patient.

As a consequence, first person involvement is always clear in all constructions, second person involvement is less clear (for example, in transitive

verbs), and third person involvement may not be indicated at all (for example, in emphatic person marking). Therefore the analysis suggested by the structure of person marking has consequence in the actual grammatical organization of person relationships. Not all persons can be used in all constructions.

Brief mention should be made of number. Number is an inseparable obligatory element in the person system, and is a basic sentence constituent. Although nouns are not obligatorily marked for number (they may take the optional plural enclitic qa), the verb or pronoun is obligatorily marked for number. All sentences contain either a verb phrase or a pronoun phrase referring to the main actors, so number is present. Other actors are indicated by relational noun phrases, which are always possessed and therefore also contain number. It is interesting to note that the plural enclitic qa is obligatory in one construction--the non-first person plural of the independent pronoun (2.2.2.5), which is otherwise indistinguishable from the singular. Therefore in the only place where number marking by prefixes breaks down, the usually optional plural enclitic becomes obligatory.

4.2.2 CASE AND LOCATION

The subject of an intransitive verb and the agent

and patient of a transitive verb in simple sentences are noun phrases headed by the noun which is the subject, agent, or patient. All other case relationships and most locative relationships (only excepting those which are indicated by locative particles) are indicated by noun phrases headed by a relational noun (2.2.2.1). In derived sentences the subject, agent, or patient may also be indicated by a noun phrase headed by a relational noun. To review, the relational nouns and their functions are:

Location:	t.witz	'on'
	t-xe:l	'instead of'
	t-xo:l	'between'
	t.txlaj	'beside'
	t.i:b'(aj)	'over'
	t.jaq'	'below'
	t-xe	'under'
	t.uj	'in'
	t.wi7	'above'
	t.txa7n	'at the edge'
	t.b'utx'	'at the corner'
	t.tzi:7	'at the entrance'
	t.i7j.la	'around'
Case:	t.i7j	'topic'
	t.u:k'(al)	'associative'
	t.u7n	'agent, causative, instrument'

t.e:	'dative, possessive, benefactive, patient'
t.i:b'(aj)	'reflexive'

The main difference between case and location is that case indicates relationships between the actors in a sentence and location indicates relationships between the actors and places. Since Mam makes no formal structural distinction between the two types of grammatical relationships, they analytically belong to the same category. Note that one of the relational nouns, t.i:b'(aj), is used to express both locative and case relationships, while another, t.i7j, is only modified slightly to fit into both categories. The only differences are that the locative relational nouns are somewhat more concrete in reference--many of them are related to common nouns (usually referring to body parts), while only one of the case relationals (t.u:k'al) is related to a common noun. Furthermore, the category of location is also indicated by a small group of locative particles (2.2.5.2). These also serve as indicators of direction of movement, however, and this dual function is an expression of the connection between direction and location.

The elaboration of the case/locative system makes it an important category. It is also crucial to an understanding of the system to note that all words which express relationships of this type are always

possessed nouns, not particles or function words or anything else. The relationships between actor or between actors and places are basically possessive relationships.

The importance of the case/locative system is underscored by the possibility of deriving nouns which indicate actors in at least four of these relationships: agent, patient, instrument, and resultant locative (2.4.2 #50, 51, 52, 53). Thus from the verb aq'na:- 'work' can be derived:

aq'na:l	'worker' (agent)
aq'ne:nj	'that which is worked' (patient)
aq'nab'il	'tool' (instrument)
aq'anb'e:n	'place where work has been done' (locative)

4.2.3 BODY AND HUMAN METAPHOR

Mam is a language which not only permits metaphorical or semantic extensions of human body parts and attributes to refer to nonhumans; it positively delights in it. Thus many of the relational nouns (2.2.2.1) which indicate grammatical relationships are always possessed forms of common nouns referring to body parts. Examples:

t.witz 'on'	witz.b'aj 'face'
t.wi7 'above'	wi7.b'aj 'head'

t.txa7n 'at the edge' txa7m.b'aj 'nose'

t.tzi:7 'at the entrance' tzi:.b'aj 'mouth'

Also, several of the nouns from class S3 (2.3.3.5) which are normally possessed by humans have closely related pairs which are always possessed or common nouns and show semantic extensions to nonhumans. Examples:

b'aq'.b'aj 'testicle'	t.b'aq' 'its seed'
kya:.b'aj 'moler'	kya: 'grinding stone'
ma:m.b'aj 'father'	t.ma:n 'male animal'
mi:j.b'aj 'waist'	t.mi:j 'its middle'
	mi:j 'half'
mu:x.b'aj 'navel'	mu:x 'very small tortilla'

This process can work in reverse, where a common noun refers to a general object, and an always possessed noun formed from it refers to a human attribute. Examples:

i:yaj 'seed'	t.iyaj.i:l 'his ancestors'
ab'q'i: 'year'	t.ab'q'i:.yil 'his age'
b'e: 'road'	t.b'e:.yal 'his part (hair)'

Another area of extension is with the words txu:b'aj 'mother', ya:b'aj 'grandmother', and ma:mb'aj 'father'. These family relationships are extended to refer to several important natural phenomena. In these cases they are always possessed by first person plural inclusive; that is, they are things which occur in the form which indicates possession by all of us (the entire

community). Examples:

qya:7 (xja:w) 'our grandmother the moon'

qma:n (q'i:j) 'our father the sun'

qma:n (q'ankyo:q) 'our father lightning'

qtxu:7 (axi7n) 'our mother corn'

qtxu:7 (a7) 'our mother water'

qtxu:7 (jb'a:l) 'our mother rain'

qtxu:7 (q'e7n) 'our mother liquor'

Qtxu:7 'our mother' also refers to measles. The explanation given for this is that since qtxu:7 refers to corn, and measles is regarded as a punishment to children for mishandling corn, therefore the disease is also called qtxu:7.

Many lexical items are referred to by complex noun phrases of the possessed noun plus noun type (see 2.5.2.1 for noun phrase formation). Frequently these phrases involve body parts and the metaphorical extensions thus produced are fascinating and very productive. Examples:

tq'ab' tze:7	'branch' (hand of a tree)
twitz tx'otx'	'world' (face of the land)
twitz a7	'river' (face of water)
tq'ab' a7	'river' (hand of water)
tb'aq' witzb'aj	'eye' (seed of the face)
tq'ab' che7w	'frost, dew' (hand of cold)
tpa:s qamb'aj	'toenail' (hat of the foot)

tpa:s q'ab'aj	'fingernail' (hat of the hand)
tqan q'a:q'	'flame' (foot of fire)
tqan ja:	'pillar' (foot of the house)
tq'ab' kamixhj	'shirt sleeve' (hand of the shirt)
tq'ab' xaq	'canyon' (hand of rock)
twitz tqan	'height' (face of its foot)

As can be seen in the above examples and processes for extending meaning of nouns with a human referent, such extension is a rich source for metaphor and lexical formation in Mam.

4.3 DESCRIPTION

Mam has quite a variety of ways for describing actions and objects, some of them rather unusual. Adjectives, of course, describe nouns, and are not at all unusual. In addition positional roots, affect words, affect verbs, and measure words all have descriptive properties.

Positional roots (2.3.2) describe the position, form, or state of an object, and imply absence of movement. Their most interesting characteristic is that they are the only root class which is not matched by a stem or word class; they must be derived into verbs or adjectives before they are words. They have distinctive derivation and semantic properties. The positional adjectives derived by -l (#70) describes an

object which has the position, form, or state referred to by the positional root. The intransitive verb derived by -e:7 (#35) from positional roots refers to something becoming like the position, form, or state described by the positional root. The transitive verb derived by -b'a: (#4) from positional roots means that an object is put or left in the position, form, or state described by the positional root, and the transitive verb derived by -: (#5) from positional roots means do the action such that the position, form, or state described by the root will result. A number of examples of positional adjectives follow to give an idea of the breadth of the descriptive power of the root class. The examples selected are all those in the corpus beginning with /b'/. Examples:

b'aql	'wilted'
b'at'l	'a bunch of light things'
b'ejl	'small pots, babies, or puppies (short fat things) when sitting'
b'eql	'a bag or net just lying there'
b'esl	'something which has increased (e.g., something which is cooking and has boiled up)'
b'ewl	'a puppy just lying there'
b'iq'l	'a grain just lying there'
b'irl	'having open eyes'
b'oq'l	'rope or twine with very coarse fibers'

b'orl 'small people with big stomachs'

b'otz'l 'wrapped up'

b'owl 'swollen part of the body, or a ball of something'

b'unl 'rested animals'

b'u7l 'piled up'

The positional roots are quite specific in their description. Equally specific are affect words (2.2.4, 3.3.5), which describe sounds, actions, or movements. The class of affect words is rather large and frequently used. A number of examples, this time all beginning with /tz̈/, follows to illustrate the variety and specificity of the affect words. Examples:

tzak' 'action of putting something like peanuts or toasted corn in the mouth'

tzej 'the action of doubling up the body'

tzeky' 'the sound of a pebble hitting the floor, or a stick on a gourd, etc.'

tzeq' 'the action or sound of hitting someone'

tziq' 'the action of a horse kicking or of shelling corn with a stick'

tzir̈rr 'the sound of only a little bit of water falling'

tzoj tzoj 'the sound of coughing'

tzoj 'the moment of lifting something'

tzokkk 'the sound of dry leaves'

tzub' 'the action of spitting'

tzuk' 'the sound of eating toasted tortillas or other toasted foods'

Affect verbs (2.2.1.2) are derived ultimately from positional and affect roots (and some unidentified roots) and have a wide range of specific meanings just as do the positionals and affect roots. They function as verbs with the addition of adverbial descriptive qualities, and are therefore a distinctive subclass of intransitive verbs. They also have distinctive syntactic properties (2.6.5.2). That such a class of verbs with combined verbal/adverbial functions exists in Mam is of itself interesting, and the particular actions which the verbs describe add considerable descriptive power to the language. Examples:

tz'linkiki:n 'walk around naked'

t'ilili:n 'go walking quickly'

leqeqe:n 'go walking crouched down'

kyexexe:n 'go hopping'

jowowo:n 'go pulling and scraping'

Measure words (2.2.2.2) describe quantities. They also are quite specific in reference, so that almost anything which can be measured has its own measure word to describe the type of measure used, the type of container, and the thing measured. Examples:

k'laj 'measure of firewood'

to7l 'bundle of long skinny things'

tzma:7	'gourdful (of liquid)'
qe7n	'container of tortillas'
laq	'plateful'
ma7l	'shot of liquor'
txqan	'a lot (of anything)'
txut	'drop'
pixh	'piece (of anything)'
che7l	'bundle of long skinny things'
pula7	'bottle gourd full of water'
xhi:7na	'gourdful of any drink'
chi7l	'basketful (of anything)'

Mam seems to be extraordinarily rich in the ways it can describe specific and detailed types of things and actions. The preceding examples illustrate the major ways in which such description works.

4.4 EMPHASIS

There is a sufficiently large number of ways in which various parts of the Mam sentence can be emphasized that it seems worthwhile to briefly review the types of emphatics at once. All of them serve to affirm part of the sentence and have no other apparent semantic content. Most of the emphatics are enclitics.

<u>:7</u> (enclitic #11) Emphasizes or stresses the separable aspects, adjectives, and particles. Example:

ma po:n 'it arrived'

ma:7 po:n 'now it arrived'

na (enclitic #10) Means 'yes' at the sentence level. Example:

ilx 'it's necessary'

ilxna 'yes, it's necessary'

Set A preposed emphatics (enclitic #12) Affirms noun possession. Example:

nja:ya 'my house'

wnja: 'my house'

Set A postposed emphatics (enclitic #13) Affirms person involvement. Example:

ma chib'e:ta 'you-all walked'

ma chib'e:tkya 'you-all walked'

ta (enclitic #15) Emphatic at the sentence level (?). Example:

at a7 po:n 'water arrived'

atta a7 po:n 'water did arrive'

-maj (suffix #75) Emphasizes participles. Example:

aq'na7n 'worked'

aq'na7nmaj 'worked'

In addition, any word can receive paralinguistic emphasis, which usually involves lengthening a long vowel, exagerrating the pitch drop of a long vowel

followed by glottal stop, and increasing vocal fry. There may also be an initial rise in vowel pitch, followed by a drop.

Stylistic and syntactic emphasis is too complex to describe at this point, but one of the main ways in which it is accomplished is through reordering of the sentence constituents to place emphasized constituents before the verb. The use and placement of sentence enclitics, especially the conjoining enclitics, may have something to do with stylistic emphasis, as would repitition, re-explanation, and similar devices.

4.5 GENERAL CONSIDERATIONS

The preceding discussion has hopefully illuminated some of the grammatical categories which were found to be of significance while undertaking an analysis of the grammar of Mam. After prolonged contact with the language it became apparent that these categories were central to an understanding of how the language works; indeed, much of the analysis of the language itself was possible only after the grammatical categories had become somewhat clearer to the investigator. It seemed unlikely that a grammatical analysis such as that presented in the first two chapters would lead others to a similar understanding of the underlying grammatical categories in the language, so they have been presented

in a separate chapter.

Many of the categories are not unique to Mam or even to Mayan language; many may well be universal categories. The particular details of how the categories are expressed and used are, however, language specific. It is hoped that the preceding discussion can be of benefit to an understanding of the genius of one particular language, and also of value to those who are interested in universal linguistic principles.

The major impetus in the consideration and discovery of grammatical categories was provided by the concept of the linguistic postulate, as proposed by M.J. Hardman. Linguistic postulates have been defined by Hardman as:

> ... those recurrent categorizations in the language which are most directly and most tightly tied to the perceptions of the speakers, those elements which, while language imposed, are so well imposed that speakers consider them just naturally part of the universe ... The most powerful postulates are those involved in the obligatory grammatical system ... Typically, a postulate is realized at several levels either simultaneously, in complementary distribution, or both, depending on the context ... they tend to remain after divergence. (Hardman, in press)

A constant awareness of the existence of linguistic postulates led directly to the discovery of the grammatical categories described here. The linguistic postulate involves two very important parts: first, that there are categorizations in the language which are realized at several levels, and second, that these

categorizations are tied to perceptions of the speakers and are therefore correlated to cultural behavior. Therefore the discovery of the linguistic postulates of the language involves first the discovery of the grammatical categories and then the correlation of these with other behavior. While not necessarily linguistic postulates themselves, the grammatical categories described in this chapter are at least evidence for the existence of linguistic postulates and suggest directions of research for the analysis of linguistic postulates.

In order to actually discover the linguistic postulates of Mam the researchers must become nearly as familiar with the cultural and social organization as they are with the linguistic organization, and then must synthesize the two. Excellent ethnographic data or extensive experience living in the area where the language is spoken, or preferrably both, are necessary. One of the fruitful places to look for cultural correlates to the linguistic categories in the Mayan area is in the sphere of ritual. An illustration from the analysis of grammatical categories of Mam will help clarify the dimensions of the problem and the avenues of inquiry to explore it. The illustration presented here involves the unity of person and place within the grammatical system.

Humanity and location are linked structurally on various levels of the grammar. Throughout the grammar

and especially in the discussion of grammatical categories it is clear that case (person relationships) and location (relationships between person and place) are united in the grammatical substructure of Mam.

Noun Inflection:

Most locative relationships and all case relationships are expressed principally by phrases headed by relational nouns. These are always possessed nouns in which the possessor refers to the place or person being related. Therefore inflectionally case and location are handled similarly, and both are expressed as possessive relationships.

Verb to Noun Derivation:

There are derivational suffixes which derive certain actors (agent, patient, and instrument) from verbs and one suffix which derives a resultant locative from verbs. Furthermore, the suffix which derives the instrumental (#52) in fact expresses a locative with certain verbs, depending on the semantics. Thus while its most common function is to derive the instrument, it also derives locatives with no other changes. The locative and case relationships are therefore handled similarly in derivational processes, and actually overlap to some extent.

Pronoun Structure:

Pronoun sets have one form for locative or existential

relationships and another for independent, identifier, copulative, or equative relationships. What is interesting here is that location enters into the pronoun relationships, and in fact is treated exactly the same as existence. Again location is not distinct from other person relationships.

Metaphor:

Finally, human metaphor is a rich and productive area for lexical and semantic extension, and many of these extensions refer to places and parts of objects with terms that are human in origin. Human body parts especially figure in such metaphor. This linking of humanity and location in so much of the grammatical structure suggests that place is but another actor in the Mam system, on the same level as actors such as the agent, the instrument, or the patient. The next obvious step in an analysis of person/location unity as a linguistic postulate is to look for cultural correlates.

Ritual behavior should presumably reflect the system. Probably the most fascinating source for ritual in the Mam area is Maude Oakes' The Two Crosses of Todos Santos (1951b), and a study of the data presented there certainly supports the hypothesis that location is closely tied up with other actors in ritual expression. Of particular interest is the place of the hills and

mountains in ritual. The mountains are places of worship, in Todos Santos they represent the most important days of the Mam calendar, and are the homes of the gods (Oakes, 1951b:71). These gods are known as the "masters of the hills" and although Oakes identifies them as residing in the hills, it might be somewhat more accurate to identify the gods as being the hills, or equal to the hills. This would fit better with the lack of separation in Mam between location and other actors and the extension of human attributes to places and objects. Thus some of the most important ritual personnel are identified with places. In addition, although Oakes never concentrates on location as such, it is apparent that location enters into the ritual she describes in such things as the placing of objects and people during ceremonies, the ordering of people and actions, and the equation of places and objects (such as the shaman-priest's table, the hills, and so on) with other ritual participants.

Ritual is but one area where correlates to linguistic postulates can be found, and the preceding example shows how some of the grammatical categories described here can be correlated with such behavior to establish the existence and the ramifications of such postulates. Obviously much study remains to be done in this area, but it is clearly one of the most fruitful areas of

research in language and culture. It is not, however, easy to do, and depends on excellent linguistic and ethnographic analysis and the time and experience with the language and culture to be able to synthesize them. It is hoped that this grammar will provide some of the necessary linguistic analysis to form the basis for studies of this type.

APPENDIX: TEXT

The story presented here was told by María Maldonado, an extremely gifted storyteller. Juan Maldonado transcribed the story and translated it into Spanish, and the author analyzed it and translated it into English. The text, broken down into morpheme segments, and a literal interlinear tranlation are presented first; a free translation follows. Sentences are numbered for ease in reference between the translations.

1) T.i7j Me:b'a
About it Orphan

2) A.t jun kwe:nt x.el n.q'am.a.7n.a ja7la
There is one story I will tell away now

a.t ju:n t.yo:l n.ya:7.ya ku7 t.q'am.a.7n
there is one her word my grandmother she told down

t.uk'a.x n.txu:.ya. 3) Ke: noq qit
with her my mother. That only at times

q.ok xub'.tza.7n.a ojtxa pwes mi:7n ke: kyja7.tzan
it scared us in before well no that well like this

te:n b'aj ky.i7j t.ku7.le:n kwanda
it is finish about them its place to go down when

ojtxa t.7itz'.j t.witz mu:nt. 4) Kye a.t
before it is born its face world. That there is

jun me:b'a n.xi7 pasya:7r.al t.uj t.zi:7
one orphan he was going to spend time in it its mouth

ma:r. 5) Ento:ns n.xi7 t.ki.7n a.t jun tal
sea. Then he was seeing there is one small

alemaj per masa:t t.b'i: t.a7 t.uj xja:w.
animal but deer its name it is in it moon.

6) Ento:ns despwe:s n.ku7 t.pensa:7r.a.n t.i7j
Then after he was thinking down about it

ento:ns n.xi7.tzan n.xi7 u:b'.a.l
then well he was going he was going to kill

t.et.e: tal masa:t t.uj xja:w. 7) Kaba:l
it small deer in it moon. Exactly

ka:mb'a:n me:b'a n.ku7.tz t.u:b'.a.n t.u7n
he won orphan he was killing down toward by its

jun ajla:j chi.tzan q'u:n.j kyja7.w
one reed well they say it is said like this

aj tz'itab' t.b'i: chi.tzan kyja7.w.
this catapult its name well says like this.

8) Ento:ns txuk xi7 masa:t t.uj ma:r
Then directly it went deer in it sea

ento:ns n.chi.tza:j kab'.a k'o7xh aj
then they were coming two buzzard this

ma:yan ky.b'i: kyaq t.7ij ky.wi7.
buzzard with red head their name red on it their heads.

9) Aj a:.qa.ya ami:wo b'a7n.wt
This you-all friend would it not be good

ky.o:k.ky.a t.e: w.ami:w.ya? 10) Nla:y
you-all enter of it my friend? Is it not possible

ch.o:k.a t.e: n.ma:jan.a? 11) Nla:y
you-all enter of it my worker? Is it not possible

tzaj ky.i:.7n.a ju:n n.ka:mb'.a ma.:7 t.xi7
you-all bring here one my prize just now it went

t.uj a7? 12) Pera nla:y.x tz.iky'.tz
in it water? But it is not possible it passes here

w.w.u7n. 13) Nn.ok te:n me:b'a o:q'a.l t.i7j.
by me. He was in orphan to cry about it.

14) Mi:7n b'aj t.k'u7j.a me:b'a pwes jaka
No finish your stomach orphan well yes

tzaj q.i:.7n.a chi.chi.tzan ky.e: ma:yan
we bring it here well they said of them red-headed buzzard

kyja7.w aj.qa ma:yan k'o7xh.
like this these red-headed buzzard buzzard.

15) Ento:ns put.tzan ky.kub' ma:yan
Then well splat they went down red-headed buzzard

t.uj t.ib'aj ma:r q'i:.l t.ka:mb' me:b'a
in it on it sea to bring his prize orphan

16) Jow.owo.:n t.iky'.tz jow.owo.:n
Pulling and scraping passed it here pulling and scrap-

t.iky'.tz asta t.iky'.al ka:n.a.n
ing passed it here until it will find passing by

t.zi a7. 17) Ento:ns n.tzaj.tzan t.i:.7n
its mouth water. Then well he was bringing it here

o tza:laj me:b'a. 18) Je7y.tzan me:b'a
now he was content orphan. Well good orphan

ma:.7 tz.u:l t.ka:mb'.a yaj.tzan q.e:.ky'
just now it came your prize and well to us

tqal.tzan k.t.aq'a.n.a q.e:.ky'? 19) Mi:7n ma:xa
well what you will give to us? No up to

ch.el a:nq'.a.n.a t.i7j t.uj.xa ju:n.tl
you-all will live on it up to in it one other

tye:mp ju:n.q'.xa t.b'i: chi.tzan kyja7.w.
time one complete its name well he said like this.

20) Ento:ns we:n chi.chi.tzan ky.e:
Then good they said of them

ma:yan ya: ja7la a:.tzan aj alemaj
red-headed buzzard now now well this this animal

t.e7 t.jaq' monta:nya ja7l a:.qa.tzan.
they are under it mountain now well they are.

21) Despwe:s nn.u:l.tzan me:b'a t.uk'a
After well he was coming orphan with him

meb'a.yi.l t.e: n.tzaj t.i:.7n
person who cares for orphans him he was bringing it here

n.ja.x t.txik.o.7n. 22) Ma ch.u:l
he was cooking it up away. Just now they came

meb'a.yi.l t.e: b'et.al j.me:b'a ki.n.a
foster parent him walking this orphan look!

ja s.a:j.a q.chi7 t.u7n.a? 23) Pwes
where did you return our meat by you? Well

s.aj w.i:.7n.a a.t ju:n n.kamb'.a chi.tzan
I brought it there is one my prize he said

kyja7.w. 24) Ya: despwe:s n.ja.pan
like this. Now after it was arriving above

tzq'a:j t.u7n n.b'aj.tzan ky.cho.7n
cooked by him well they were finishing eating it.

meb'a.yi.l t.e: a.tzan t.e: noq ok joq.e:7
foster parent him well this of him alone he sat in

t.witz ja: nti7 tzaj q'o.7n ch'in
its face house there is not gave him here a little

t.chi7 t.u7n meb'a.yi.l t.e:.
his meat by him person who cares for orphans him.

25) Ky.jon.a:l meb'a.yi.l t.e: b'aj.ka.x
They alone foster parent him but finished

ky.u7n aj.tzan.j b'a:q n.b'aj.tzan ky.u7n.
by them well this bone well was finished by them.

26) Xum.aja t.e:.x b'a:q ky.u7n b'ix
Zing! it went out away bone by them and

t.o:k me:b'a chm.o:.l t.et.e:. 27)
he entered orphan to gather it.

N.chi.b'aj.tzan t.chm.o.7n me:b'a asta
Well he was finishing gathering them orphan until

nn.ok te:n me:b'a wo:ns.l t.et.e: t.b'aq'.al
he was into orphan to toast it its bones

masa:t i: despwe:s n.ku7 t.pensa:7r.a.n.
deer and after he was thinking down.

28) A:.tzan.j ajaj a.t jun luga:r t.wi7
Well this this there is one place on it

tz'aqo7n t.b'i: ja7la. 29) N.xi7 t.mun.a.7kj
its name now. He was going to plant

me:b'a.jo n.xi7 t.mun.a.7kj me:b'a.jo.
this orphan he was going to plant this orphan.

30) N.xi7.tzan mun.a.l t.e: tza7n.x.tz ky.te:n.ka
He was going to plant it everything

t.awal me:b'a j.7aj itza:j na:pixh
his crop orphan this vegetable turnip

tza7n.x te:n.ka qa.j itza:j t.e7 t.jaq'
like everything these vegetable they are under it

k'u:l b'ix j.7aj nn.ok xukb'a:kaj
fields and this was entering (type of vegetable)

t.b'i: t.xaq me:b'a. 31) Kyja7.tzan
its name its leaf orphan. Well like this

nn.o:k.a t.awal me:b'a.jo. 32) Ento:ns
it was entering his crop this orphan. Then

despwe:s t.uj.tzan t.ne:j.al q'i:j a:.jo
after well in it first day this

ky.ja:7w.al b'aj awal.qa j.7a:.jo t.uj
they came up finished crops this in it

t.ka:b'.an q'i:j. 33) Ky.ja:7w.al.jal ajaj xhja7w
second day. It came up animal this possum

a.ya tal we:ch tza7n.x te:n.ka tal kla:se
this small fox like everything small class

tal txkup t.e7 t.jaq' k'u:l t.awal
small animal they are under it woods his crop

me:b'a.qa chi.tzan kyja7.w. 34) T.uj.tzan t.o:x.an
orphans he says like this. Well in it third

q'i:j ke: a:.tzan ky.ja:7w.al tal masa:t pwes
day that this they came up small dees well

o.xax tza:laj me:b'a we:na a:.tzan ky.ki:.n.x
now he was content orphan good well this they were seen

t.awal t.a:7lan txi t.ki.7n tal masa:t.
his crop his animal he saw away small deer.

35) Xhli:ky.j ky.xi7 t.xi t.ki.7n ento:ns
Germinated they were when he saw away then

o tza:laj t.u7n t.la:j. 36) Despwe:s
he was content because of it its reason. After

ya: n.chi.ch'i:y.tzan t.a:7lan n.chi.ch'i:y.tzan
now well they were growing his animal they were growing

n.chi.chm.e:t.tzan t.a:7lan ja7la. 37)
well they were gathered his animal now.

N.b'aj t.b'i:nch.a.n jun kora:l a:.tzan t.kora:l
He finished making one fence well that its fence

masa:t ento:ns n.b'aj.tzan t.b'i:nch.a.n. 38) Ento:ns
deer then well he finished making it. Then

ya: n.tza tzoq.paj ky.i7j meb'a.yi.l t.e:
now he suggested here at them foster parent him

pwes a.t t.chi.b'aj w.u:k'al.a ja7ka
well there is his meat with me yes it can

chi.b'an.t ky.q'a.n.tz ky.xb'u:7q.a tzalu:7.
they are made give it here! your rags here.

39) Xb'u7q per chi.b'aj n.b'an.t w.u7n.a
It is a rag but meat it is made by me

nya:7 ti.:7.la tqal.ta chi.tzan q'u:n.j
it is not what what well he said it was said

chi.tzan t.e: me:b'a kyja7.w ok t.ma.7n.
well he said of it orphan like this he said in.

40) A:x.pa t.ok.le:n me:b'a maj xb'u7q jlu:7
It is certain orphan that rag this

n.tza: ky.chm.o.7n tx'aq.an ky.xb'u:7q ja:.chaq
they gathered here old their rags where each

t.a7 chu:.chaq txak.o:.n.j.a me:b'a. 41) Jak
it is hurry cook this! orphan. It can

b'an.t t.u7n.a? Ja:7k. 42) Ok.tzan tza t.i:.7n
be done by you? It can. When he brought it here

me:b'a n.ku7 t.ju:s.a.n iqujin t.ku7 me:b'a
orphan he burnt it down and he ran down orphan

asta q'i.l jun t'al t.a:7lan t.e: ky.chi7
until to get one liquid its chicken of it their meat

meb'a.yi.l t.e:. 43) A:.pa xb'u7q n.b'an.t
foster parent him. Is that rag is made

t.u7n.a me:b'a? 44) Pwes a:.jo. B'ix.tzan.la
by you orphan? Well that is it. And well

n.kub' kwe:nt t.i7j t.i7j me:b'a ky.u7n
were guarding down at him at him orphan by them

meb'a.yi.l t.e:. 45) Ya: ma po:n.tl
foster parent him. Now he arrived here again

me:b'a il.o.l t.e: ya: tz'i:nan.qa kab'.l
orphan to see it now they were not there two other

t.a:7lan o:.taq ch.etz ilq'.a.7n ky.u7n.x
his animal they had robbed him by them the same

meb'a.yi.l t.e:. 46) Ma ka:n.a.n.l ju:n.l
foster parent him. When he met again one other

el me:b'a tz'i:nan.l.qa kab' alemaj.
time orphan they were not there again two animal.

47) Ti:.tzan tqal mo:da? nn.ok te:n me:b'a
Well what what manner? he was there in orphan

pensa:7r.a.l t.i7j. 48) Pwes xb'u7q.xax.w.a
to think about it. Well rag I

n.b'an.t w.u7n nya:7 chi.b'aj.w.a kyja7.tzan
is made by me it is not meat I well like this

te:n.t kyja7.w chu:.chaq ky.i:.7n.tz xb'u7q.a
it is like this hurry bring here rag

je7y. 49) N.ja.pan jun k'il kyq.a7
then. He was putting up there one pot hot water

t.uk'.a jun k'il xb'u7q t.uj. 50) Ento:ns
with it one pot rag in it. Then

n.xi7 tzoq.paj me:b'a tz'i:nan.xa b'an.t.
he was escaping away orphan never it was done.

51) Mi:7n par tza7n b'an.t t.u7n.a me:b'a?
No but how it was done by you orphan?

52) Mi:7n par a.t ju:n.l mo:da l.o.7n
No but there is another manner seen

w.u7n.a kyja7 n.te:7n.a. 53) N.xi7
by me like this it is. He was going

y.o.l kab'.a chap t.zi a7
to look for two crab its edge water

n.ch.u:l.ky.a txqan n.chi.ku7.x.tzan
they were arriving here a lot well they were going down away

chap t.zi q'a:q' b'ix lu: t.kyq.a7
crab its edge fire and there its hot water

n.loq.na. 54) Ento:ns n.ch.e7x.tzan
was boiling. Then well they were going

chi.mok'.e:.ka.x.a kyja7.w kyja7.tzan
crouch down away you-all! like this well like this

te:n k.b'an.t.e:l.t.a q.chi7 kyja7.w
there is it will be made our meat like this

chi.mok'.e:.ka.x.tzan.a. 55) N.chi.ku7.x
well crouch down away you-all! Well they went down

tzan.x.ky.te:n.ka t.ajwil.ja: n.chi.ku7.x mok'.e:7.
everything its owner house they were crouching down.

56) N.chi.ja:.tz.tzan po:n.j chap ja7la
Well they were exploding up there crab now

t.uj t.b'a7 ky.witz. 57) Asta b'i7x
in it its seed their face. Until all at once

ku7 lo7tz.a.n t.zi ky.witz t.u7n
it was closed down its edge their face by him

t.ajwil.ja: o7k.san te:n.jo. 58) Ya
its owner house well only this is it. Now

despwe:s n.ku7 t.b'i:s.a:.n ju:n.tl ya naj.tzan
after he was being sad down another now well no

t.o:k.l a:.jo. 59) Ya n.xi7 tzoq.paj.l
it entered again that. Now he was leaving away again

me:b'a q'i.l chi.b'aj pwes tzip t.e:.x.j
orphan to get meat well whoosh! it went out

ajaj xb'u7q t.u7n. 60) Nn.ok no:j t.i7j
that rag by him. He was finding in at it

jun ka:b' t.jaq' k'u:l pwes nn.ul t.i:.7n
one beehive under it brush well he was bringing it here

ky.witz meb'a.yi.l t.e:. 61)
in front of them foster parent him.

O:.t.tzan chi.tzak.j.a meb'a.yi.l t.e: t.ok t.ki.7n.
They had been destroyed foster parent him when he saw in.

62) To:ns nn.ul.tzan t.i:.7n ka:b'
Then well he was bringing here beehive

ja: s.a t.i:.7n.i.ya me:b'a? 63) A:wt
where did you bring it here orphan? If only

ch'i:n q.qo7 le:q'.a.l t.witz jj.tze:7
a little we were to lick its surface this tree

jatuma s.a t.i:.7n.i.ya. 64) Pwes qa ky.aj.a
where you brought it here. Well if you-all want

ch.e7x.a a.t t.tze:7 chi.tzan q'u:n.j
you-all go it is there its tree well he said it was said

kyja7. 65) N.ch.iky' t.u:k'a meb'a.yi.l
like this. They were passing with him foster parent

t.e: asta n.chi.ja.pan t.q'o.7n t.wi7
him until he was giving them up there above it

jun tze:7. 66) Sabe:r jniky'.pu:n jun tze:7
one tree. Who knows what size one tree

mati:j jun tze:7 chi.tzan q'u:n.j.
big one tree well they say it is said.

67) N.chi.ka.n.a.n n.chi.ja.pan.tzan
They were arriving well they were going up there

t.u7n t.wi7 tze:7. 68) Jotx t.a:j.tz
by it on it tree. Boom! he came back here

me:b'a asta n.kub'.al t.witz tx'otx'
orphan until he was coming down its surface earth

n.tze:.n. 69) Ch'uq t.e:l t-xa:jb'.a
he was laughing. Clunk! it went out his shoes

nn.o:k txpa:tz'.a.n t.ku7j mati:j tze:7.
he was hitting its stomach big tree.

70) Mal.ala.:n t-xi7 tze:7 ja7la max.tzan
It went swelling tree now until no

t.u7n ky.ku7.tz xja:l chi.tzan.
that they went down here person they say.

71) Ento:ns a:.tzan. Despwe:s n.ku7 t.pensa:r.a.n
Then that was. After he was thinking down

ti: chi.b'.e:l.atz.ya? 72) Mejo:r qi:na
what will they come down here? Better I

txak.o.l ya:7.yj. 73) A:.tzan ya:7.yj
will call grandmother. This grandmother

nn.o:k xja:w. 74) N.xi7 txak.o.l t.e: ya:7.yj
was in moón. He went to call her grandmother

t.uk' mari:mp. 75) We:na n.tza:j.tzan.t
with it marimba. Good well she was coming

ya:7.yj ch'ix.taq.tzan t.pon ka:n.a.n
grandmother well almost when she arrived there

t.xi7 t.ki.7n ya:y.yj lu:7 qa.xja:l noq
she saw away grandmother there the people only

te:n.l t.ja.x.qa ma: t.wi7 tze:7.
there is they are up up to above it tree.

76) N.xi7 tzoq.paj ya:7.ya jejeje:.ya.jo
She was going grandmother ho ho ho cried

n.ya:7.tzan qa.w.w.a:l.qa.j mati:j u:ch' t.zi
grandmother my children big cry baby its edge

ky.witz. 77) O7k.san t.xi t.ki.7n iky.jo
their face. Well only when she saw it like that

xhqittt.tzan ky.e:.x a:.qa.tzan. 78) Aj
skittering they went out there. This

xma:xh t.e7 ja7la a:.qa.tzan aj mo:na
monkey they are now they are this monkey

a:.tzan.qa.jo. 79) To:ns kyja7.tzan te:n il.e:t
that is they. Then like this it is are found

qa.j.mo:na. 80) A.:7.qa.ya mati:j ju:das mati:j
these monkeys. Oh you! big damned big

tzu7w.qa.ya mati:j trampo:s nya:7.la me:ra w.a:l.qa.ya.
ingrates big cheat it is not real my children.

81) Ja7la ky.xi7.ya lu: ky.wa:.ya t.witz
Now go!. there your food its fruit

chi:7laj lu: ky.wa:.ya t.witz ana:q'
(type of tree) there your food its fruit (a plant)

ku:7.tx.qa.ya ja7la chi.tzan ya:7.yj.
go down there! now well she said grandmother

82) O7k.san te:n n.ch.e:x xhqittt.tzan
Only it is they were going skitterring

ky.e:71. 83) Ja7la nn.aj.tz tzoq.paj.l
they left. Now he was coming back again

me:b'a.tl mi:7n.ajo ya:7.ya t.xi7.ya a.t.x
orphan again no this grandmother go! there is

kab'.l.ni w.a:lan.a t.e7 l.a.7tz.a. 84) Jatumal
two other my animal they are go and see! Where

me:b'a jatumal? tu:k'a.x mari:mp t.ok.
orphan where? with it marimba she went.

85) N.ku7 ne:j me:b'a t.u:k'a.x
He was going down quickly orphan with it

mari:mp ya:7.ya t.u:k' mari:mp. 86)
marimba grandmother with it marimba.

T.xi7 t.ki.7n.tl ya:7.yj lu:.qa kab'
When she saw away again grandmother there were two

masa:t ky.ki:.n.x xhli:ky.j t.xi7
deer that were seen out of the ground it went

ky.wi7 t.uj ky.kora:l. 87) T.xi7 t.ki.7n.tl
their heads in it their corral. He saw away again

me:b'a xhliky.leqe7 t.a:7lan me:b'a.
orphan they were out of the ground his animal orphan.

88) Ento:ns n.tzaj jejeje:y ya:qa leje:r
Then she was coming ho ho ho hardly nice

jun.t.a t.a:7lan ya:qa.na t.b'a:n.al o7k.x.san
one your animal hardly its goodness well only

t.xi ky.ki.7n j.7iky.jo tillll.tzan ky.e:l
when they saw it like that well scampering they went out

ja7la. 89) Kye a:.tzan.qa.j masa:t t.e7 aqaj
now. That these are deer they are those which

ij.e7x oq t.uj ky.kora:l. 90) A:.tzan.qa.jo
they went flee in it their corral. Well those

t.e7 t.jaq' monta:nya a:.tzan.qa.j i.kye
they are under it mountain those are they stayed

kol.e:t kab' o:x ne:7 a:.tzan.qa.j aj
were saved two three small those are that

chi:p t.e7 alema.7n ky.u7n xja:l ja7la.
goat they are domesticated by them person now.

91) A:.tzan.jo o7k.x.tzan te:n.j kab'a n.yo:l.a.jo
That is well only it is two my word

b'i.7n w.u7n.a ky.yo:l aj ojtxa xja:l
heard by me their word that before person

ky.yo:l chma:m.b'aj a:.tzan.jo b'i.7n w.u7n.a
their word grandfathers this is heard by me

o7k.x.san te:n.jo x.el.n.q'am.a.7n.a.
well only that is I will say away.

FREE TRANSLATION

1) About an orphan. 2) There's a story I'm going to tell you now, that my grandmother and my mother told. 3) It always scared us before, but no, this is what happened when the world was formed a long time age. 4) There was an orphan who went to spend time by the sea. 5) And then he saw that there was a small animal, called a deer, that was in the moon. 6) So he began to think about it, and he thought, and he went to kill the small deer in the moon. 7) The orphan was successful, he killed it with a reed, which is called a catapult, according to the story. 8) Then the deer fell into the sea, and then two buzzards with red heads came. 9) "You, friends, couldn't you be my friends?" 10) "Couldn't you be my helpers?" 11) "Couldn't you bring my prize that fell in the water?" 12) "I can't get it out." 13) And he began to cry about it. 14) "Don't worry, orphan, we can bring it," said the buzzards with red heads like that, those red-headed buzzards. 15) Then, splat! fell the buzzards in the sea, to get the orphan's

prize. 16) They brought it pulling and scraping, pulling and scraping, until it arrived at the edge of the sea. 17) So they brought it and the orphan was happy. 18) "Okay, orphan, now we brought your prize, so for us, what will you give us?" 19) "No, you will live with this, until another time," he said. 20) "That's okay," said the buzzards, and now these animals are in the mountains, that's where they are. 21) Then the orphan went with the people who took care of him and brought the deer and cooked it. 22) When his foster parents came from their trip, "Look, orphan, where did you get our meat?" 23) "Well, I brought it, here is my prize," he said like that. 24) And then he cooked it, and his foster parents ate it up, and he sat alone in the corridor of the house, and his foster parents didn't give him any meat. 25) The family alone finished it, they finished it all except for the bones. 26) Zing! they threw the bones, and threw the bones, and the orphan gathered them up. 27) The orphan finished gathering them, and he began to toast the deer bones and afterwards he began to think. 28) There is a place that's called Twi7 Tzaq'o7n now. 29) He went to plant, he went to plant there. 30) The orphan went to plant his crop, the vegetables, the turnips, all the vegetables that there are in the fields, and that which is called xukb'a:kaj, or orphan's leaf. 31)

Because of this it is called orphan's crop. 32) Then after the first day, these crops germinated, the possums, the foxes, all the types of animals in the woods, and because of this they say orphan's crop. 34) On the third day the little deer germinated, and the orphan was content because he could see his animals, his little deer. 35) They had been born when he saw them, so he was happy about it. 36) And after this his animals were growing, and growing, and were reproducing. 37) He made a fence, the fence of the deer, and he made it. 38) And then he said to the people who took care of him, "Well, I have meat, you can fix it, give me your rags." 39) "It's a rag, but I'll turn it into meat, and nothing else," he said, he said he could do it. 40) "Really, orphan? This is a rag," and they gathered their old rags from where they were, "Hurry and cook them, orphan!" 41) "Can you do it?" "Sure." 42) So the orphan got it and he burned it and the orphan ran to get a chicken for his broth, for the meat for his foster parents. 43) "That's it." And his foster parents were checking on the orphan. 45) Now when the orphan arrived to see, two of his animals weren't there, they had stolen them, the same foster parents. 46) When the orphan came another time, two animals weren't there again. 47) "What's this?" And the orphan started to think about it. 48) Well

I'm making rags into meat but not really, it's like this, so hurry and bring the rags then. 49) He put on a pot of hot water, with a rag in the pot. 50) Then the orphan left, because it would never cook. 51) But no, "How did you do it, orphan?" 52) But no, "I know another way to do it, it's like this." 53) He went to look for two crabs at the edge of the water, and he brought a lot and put the crabs by the fire, and there was the boiling water. 54) "So crouch down like this, like this our meat will be cooked, so crouch down." 55) And all the people of the house went down, and crouched down. 56) And then the crabs exploded in their eyes. 57) Until all at once the owners of the house closed their eyes, that's all. 58) Then he was thinking about another thing, but he didn't do it. 59) And the orphan went to get meat, then whoosh! he spread out the rag. 60) He found a beehive in the woods, and he brought it for his foster parents. 61) In that time he saw that his foster parents were destroyed. 62) Then he brought the beehive, "Where did you get it, orphan?" 63) "If only we could lick a little on the surface of the tree where you got it." 64) "Well, if you want to go, the tree is there," he said. 65) He took his foster parents and raised them up in the tree. 66) Who knows what size tree, they say it's a big tree. 67) They got there, and they went up. 68) Boom! the orphan

came down, and when he got to the ground he was laughing. 69) Clunk! he took off his shoes and hit the trunk of the big tree. 70) The tree swelled up until the people couldn't get down, they say. 71) That's what happened. Then he started to think, "How will they get down?" 72) "I'll call grandmother." 73) The grandmother was the moon. 74) He went to call the grandmother with the marimba. 75) Good, and the grandmother came, now the grandmother was just arriving, and when the grandmother saw that the people were up there in the top of the tree, 76) grandmother went "Ho ho ho," grandmother cried, "My children with the big crying eyes." 77) Only that when she saw them, they went skittering (in the trees). 78) These are the monkeys that there are now, these are the monkeys, these are. 79) Now that is how the monkeys came to be. 80) "Oh you damned, ingrates, cheats, you're not my real children." 81) "Now go! There's your food the fruit of the chi:7laj, of the ana:q', go away!" said the grandmother. 82) And only this, they went skittering, they went away now. 83) And the orphan came back, "Look, grandmother, go and see two more animals that I have still." 84) "Where, orphan, where?" 85) And they left quickly, the orphan and the grandmother and the marimba. 86) And when the grandmother saw it again, there were two deer that she saw out of the ground in the corral. 87) And

when the orphan saw his animals were out of the ground, when the grandmother saw the orphan's animals were out of the ground, 88) she came crying, "Ho ho ho, your animals are hardly nice, they're hardly good," and when they saw that, they left scampering off now. 89) Those are the deer that there are, those that fled from the corrals. 90) Those are the ones that are in the mountains, and those that stayed were two or three small ones, which are the goats that now are domesticated by people. 91) That's all, these are my only words that I know, words of the ancestors, words of the grandfathers, that's all that I've heard, that's all I will say.

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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June, 1975

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